Medicare Hospital

INFORMATION

Report

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MEDICARE HOSPITAL INFORMATION

1988 • 1989 • 1990

Volume 48

UTAH

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FOREWORD

The mission of the Health Care Financing Administration (HCFA) is to promote the timely delivery of appropriate, quality health care to the nation's aged, disabled, and poor. The agency must also ensure that beneficiaries are aware of the services for which they are eligible, that those services are accessible, and that agency policies and actions promote efficiency and quality within the total health care delivery system.

To that end, the annual release of the Medicare Hospital Information report is a key element in our continuing efforts to improve the effectiveness of medical practice and the quality of care provided to Medicare beneficiaries. It is also an important step in helping beneficiaries make more informed health care decisions.

The information in this release is not intended as a direct measure of quality of care. It is best used as a "screening tool"—that is, to identify potential problems for further review and, in consultation with medical staff, to evaluate a hospital's strengths and weaknesses. Thus, we believe that consumers can use this information to ask questions of their physicians, rather than reach judgments about the quality of care in a particular hospital. We also expect this information to be used by hospital administrators, physicians, peer review organizations, State survey and certification agencies, and researchers.

This publication presents information to answer the question "What is the actual mortality rate within a certain period of time for each hospital compared to the rate that would have been predicted, given what we know about the characteristics of the patients admitted?" Our basic approach to analyzing hospital mortality information has remained unchanged for the past five years; however, since the last publication of mortality information in May 1991, we have made some significant changes both in our methodology and in the way we display the results of our analysis. The four principal changes in the 1992 report are:

- A graphic presentation of the predicted and observed mortality rates for most hospitals for "All Causes" for Federal fiscal years 1988-1990 at 30, 90, and 180 days;
- The addition of information on certain variables that we use in computing the predicted mortality rates for each hospital;
- The addition of information on the geographic origin of each hospital's patients; and

- A comparison of the average length of stay in each hospital with the average for the State and Nation.

These refinements should make this information an even more valuable educational tool to help improve the quality of care in hospitals. The changes were reviewed by a panel of outside experts. The methodology used to calculate the observed mortality rate, the predicted mortality rate, and the standard deviation are briefly described in the Technical Information section of the Introduction to this volume and in more detail in the Technical Supplement (Volume 55).

We acknowledge the assistance we have received from the American Hospital Association—not only for providing the information detailing selected hospital characteristics, but also for alerting its members to the importance of this information. We are also grateful to the personnel in each hospital who took the time to review the data thoroughly and to provide us with comments and suggestions. As before, we have published individual hospitals' comments in their respective State volumes. Over the years, these communications have helped to improve and refine the information included in this publication.

HCFA is committed to improving the Medicare Hospital Information report. To that end, we are continuing to work with representatives of hospital, consumer, employer and other organizations to make this annual report as useful as possible for all consumers.

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INTRODUCTION

The Medicare Hospital Information report contains information on acute care hospitals that treated Medicare patients discharged in Federal fiscal year (FY) 1990 (October 1, 1989—September 30, 1990).

This year's publication set consists of 54 State volumes and a Technical Supplement (Volume 55). There is one volume per State, except that California and Texas have two volumes each, Hawaii is combined with American Samoa and Guam, and Puerto Rico and the Virgin Islands are combined together in one volume.

Each hospital's two summary data pages are arranged alphabetically by hospital name in each State volume. These data pages consist of:

- The hospital's FY 1990 Medicare hospital mortality rates;
- A graphic presentation of the predicted and observed mortality rates for **most** hospitals for "All Causes" for FYs 1988—1990 at 30, 90, and 180 days;
- The FY 1990 values for selected explanatory factors used to predict the mortality rates;
- Origins and lengths of stays of Medicare admissions; and
- Hospital characteristics, such as the number of beds and other characteristics, which we obtained from data contained in the American Hospital Association's (AHA) 1990 Annual Survey of Hospitals files or, when such information was not available from the AHA file, the Health Care Financing Administration's (HCFA) Online Survey, Certification and Reporting System (OSCAR) file.

> ***Please note that the information regarding origins and lengths of stays and hospital characteristics are presented strictly for information purposes only. They were not used to calculate the hospital's predicted mortality rates.***

Toward the end of each volume, we include both State and national mortality rates developed by our analysis, as well as the comments we received from individual hospitals.

Description Of Mortality Information

The mortality rates at a given hospital may reflect, among other factors, the age, sex, diagnoses, and severity of illness of patients admitted to that hospital, as well as the quality of care they received. Factors affecting health and the probability of death vary among the patient populations served by individual hospitals. Consequently, the mortality rates in different patient populations vary considerably.

These latest analyses of the mortality rates associated with Medicare hospitalizations are similar to those carried out in the four prior years. Only one hospitalization for every patient was used. As in last year's analysis, when a patient had multiple hospitalizations during the fiscal year, one stay was selected at random to be analyzed. We believe that the use of the randomly selected admission provides a better representation of a typical hospital admission and permits us to calculate mortality rates more nearly like those the hospital itself would calculate for its patients.

Although we publish data only on deaths which occur within 180 days of admission to the hospital, for purposes of analysis our methodology actually considers deaths which occur any time within 365 days of admission (with the exception that no date of death later than April 1, 1991 is used). This is part of the formula which assesses the long-term risk of mortality. With this approach, information about the early and later results of the hospitalization is provided. This is important because diseases evolve with different time courses, and treatments may have different short- and long-term effects. The choice of at least 180 days allows substantial followup consistent with timely reporting of HCFA data.

We again analyzed the data on a fiscal year, rather than on a calendar year, basis because it allows us to report on recent hospitalizations. Also, new Medicare rules are often instituted on a fiscal year basis.

For each hospital, mortality rates are presented for overall Medicare patient mortality and for eight medical conditions and nine procedures. The information consists of the number of Medicare patients; the observed or actual mortality rate (OBS); the predicted mortality rate (PRED), given the mix of patients; and a standard deviation (SD), a measure of the uncertainty of the predicted rate.

The following information will be helpful when reviewing specific information for any given hospital.

Number Of Cases

This is the number of individual Medicare beneficiaries whose discharge in a fiscal year from the short-term, acute care hospital listed was selected for analysis. The total number of cases randomly selected for each hospital is presented under the category "All Causes." The eight medical condition and nine surgical procedure categories are subgroupings drawn from the "All Causes" selection. Although a particular patient may appear in only one of the eight medical condition categories, that same patient may also appear in one or more of the nine surgical procedure categories. Similarly, a patient may appear in one or more of the nine surgical procedure categories, even though he or she was not included in any of the eight medical condition categories.

The categories chosen for display represent HCFA's interpretation of the categories judged to be important by various outside advisors including the Institute of Medicine. The listed condition and procedure categories do not cover the reason for admission of all the hospitalized Medicare patients in this study. (The ICD-9-CM codes included in each condition and procedure category appear in Table 1 following this Introduction section.)

These conditions and procedures represent the causes for the hospital admission and/or surgical episodes during that stay; they do not necessarily represent the cause of death. HCFA does not have access to cause of death information.

Observed Mortality Rate (OBS)

The observed mortality rate for each category is the percentage of each acute care hospital's selected Medicare patients who died within 30, 90, or 180 days of the selected admission. This rate does **not** represent the percentage whose death was caused by a particular condition or procedure.

The percentage is rounded to the nearest one-tenth of one percent. Both inhospital deaths and deaths occurring after discharge but within 30, 90, or 180 days of admission are included. For example, if a hospital had 1,000 patients included in the "All Causes" category and 124 of these patients died within 30 days of the selected admission, the 30-day observed mortality rate would be 12.4 percent; if an additional 17 patients died more than 30 but less than 91 days after admission, the 90-day observed mortality rate would be 14.1 percent; and if an additional 13 patients died more than 90 but less than 181 days after admission, the 180-day observed mortality rate would be 15.4 percent.

It is important to note that the observed mortality rate is cumulative; e.g., the 90-day observed mortality rate includes all deaths which occur within 30 days of admission, as well as those occurring more than 30 and less than 91 days after admission.

Predicted Mortality Rate (PRED)

The predicted mortality rate for each hospital's patients is derived in part by determining, based on national experience, the contribution to the probability of dying associated with various patient characteristics such as:

- Principal diagnosis (grouped into 23 analytical risk categories),
- Age,
- Sex,
- Previous hospital admissions within the prior six months,
- Admission source (e.g., physician reference, skilled nursing facility reference),
- Admission type (e.g., elective or emergency), and
- The presence of up to seven comorbid conditions—cancer, chronic cardiovascular disease, chronic renal disease, chronic liver disease, chronic pulmonary disease, cerebrovascular degeneration, and chronic diabetes. A list of the ICD-9-CM codes defining the comorbid conditions is in Table 2 following this Introduction section.

Standard Deviation (SD)

The standard deviation is a tool to gauge the extent to which the difference between the observed and predicted mortality rate is meaningful. In general, the greater the difference between the two rates, the greater the probability that the difference represents an actual variation from what would be expected in view of the national experience. The less chance that the difference between the PRED and the OBS can be attributed to statistical variability, the more grounds for possible concern about the institution's performance.

Information on how to use the SD to construct prediction intervals for use in assessing the real difference between the OBS and the PRED is included in the Technical Information section of this Introduction. The precision and interpretability of the estimates are weaker when there are no deaths or 50 or fewer cases in a particular category being analyzed. Thus, for these instances, dashes ("---") are placed in the SD column.

Observed Mortality Rate And Predicted Range For Medicare Patient Admissions For All Causes

Also in this year's report, we have presented graphs that display the information for most hospitals described above for FYs 1988 and 1989, as well as FY 1990. (In particular, these graphs could not be computed for hospitals that had 50 or fewer cases or no deaths in FYs 1988, 1989, or 1990). In constructing the graphs, we used 2 times the standard deviation to approximate a 95 percent prediction interval. The observed mortality is shown as a dot (•). The predicted mortality is shown at the middle of a range of mortality rates. The bottom of the range is the predicted mortality minus twice the standard deviation, and the top of the range represents the predicted mortality plus twice the standard deviation. The graphs for FY 1988 and FY 1989 are based on new random samples and new computations for this year's report. Thus, the calculations for some hospitals for FY 1988 and FY 1989 may be different from previous releases, because we are including more current data in this year's report.

FY 1990 Values For Selected Explanatory Factors Used To Predict Mortality Rates

This year's report includes the FY 1990 average at each hospital of many of the explanatory factors used to predict that hospital's mortality rates. This information provides a profile of the patients used in the analysis and should help to identify possible systematic coding errors in the claims data used to calculate the mortality rates. These percentages are derived from the patients included in the sample and should be applied to the total number of cases listed in "All Causes." It is important to note that neither the admission sources/types nor the comorbidities categories are mutually exclusive. For example, a patient could be both "referred by his personal physician" and "admitted for elective procedure." Similarly, a patient could have secondary diagnoses of both cancer and diabetes.

Information Sources And Notes

We believe that when the mortality rate information is properly understood and applied, it can be very useful; it can also be misleading if it is interpreted incorrectly. The information simply describes one of several possible outcomes at a hospital—postadmission mortality for Medicare beneficiaries.

Mortality information is not necessarily representative of a hospital's total performance in all aspects of patient care. Individual hospitals may have very good reasons for their rates being higher than the rates predicted by the HCFA model. For example, one hospital might have different death rates than another because its patient mix is not fully accounted for by the model.

Accordingly, we offered each hospital the opportunity to review their specific information and to provide comments to HCFA and the public, and we included those comments that were received timely at the end of this volume. Users should read the discussions about the uses and limitations of the mortality information found on page xiii, as well as any comments a hospital may have provided.

Hospitals In The Analysis

The hospitals included in this analysis are participating in Medicare as short-term, acute care facilities—all have a zero in the third position of their Medicare provider number. All other hospitals—those with something other than a zero in the third position of their provider number, such as rehabilitation facilities or psychiatric institutions—were excluded. This year, as in the past two years, we have also excluded hospices.

In some cases, we have included data for hospitals that closed, changed ownership, or changed management either during or subsequent to FY 1990. Our data included for those institutions reflects the situation as it existed at the time the hospitalizations analyzed occurred.

Data Sources

This report is based primarily on Medicare hospital billing information for Federal fiscal years 1988, 1989, and 1990. While the principal source of the data for the analysis was the HCFA-maintained Medicare Provider Analysis and Review (MEDPAR) file, which contains information about each Medicare hospitalization, some of the information about beneficiaries, such as date of death, was obtained from the Social Security Administration. Hospitals submit bills to HCFA's fiscal intermediaries (which handle claims for the inpatient care provided to Medicare beneficiaries) which, in turn, submit this information to HCFA. The file is updated on a quarterly basis. Our analysis was based on information available following the June 1991 update of the MEDPAR file. It is estimated that by that time (nine months after the close of the fiscal year), 98 percent of all Medicare discharges in FY 1990 are included in the file.

Possible Limitations Of The Data

In any large-scale data base, such as the one dealing with Medicare hospitalizations, there will be gaps or inaccuracies. For example, last year some hospitals had not accurately reported the source or type of admission, and thus erroneous information was included in the analysis for those hospitals. However, the fact that the files contain information on about 10 million hospital admissions to nearly 6,000 hospitals for each year provides some assurance that, for purposes of the statistical analysis conducted here, the information that might be

missing or inaccurate is such a small portion of the total that it would have little effect on the results for national estimates. Nevertheless, it may substantially affect an individual hospital if it were the source of the inaccurate information.

While we feel that the information used in this analysis is thorough and complete, there are a few points to keep in mind as you review the mortality information.

The information used is billing data; it is only as good as the information submitted by hospitals as part of the payment process. Although there is always a possibility that coding errors are included, we assume that, given the link to payment, hospitals have an incentive to submit bills accurately and promptly. We do know, however, that some hospitals submitted incomplete or erroneous data.

For example, following last year's public release of the hospital mortality data, several hospitals wrote to HCFA indicating that they had submitted incorrect data. Furthermore, they stated that if they had given us the correct information, their predicted mortality rates would have been higher than those presented in HCFA's report. Therefore, in this year's report we have annotated those hospitals' data pages with a footnote stating: "This hospital says that it submitted inaccurate data to Medicare and claims that its predicted mortality rate should be higher than that presented above." At this point, however, HCFA cannot confirm the validity of those hospitals' claims. The analysis results might very well be different if the data on which they were based were submitted accurately by those hospitals.

In our previous analysis of mortality data, we discovered that some States had zero admissions from a skilled nursing facility. While some of these problems were corrected on the MEDPAR files used for this analysis, at the time this study was initiated we found empirical evidence that some of the files still contained suspect information. The suspect data were identified by noting those months (date of discharge) and fiscal intermediaries for which the type and source of admission fields appeared to be interchanged. Based on our findings, we reversed these fields to at least partially correct the remaining discrepancies. The following list shows the specific instances for which the fields were reversed for this analysis.

TYPE AND SOURCE OF ADMISSION FLIPPED

FI No.	FI Name	Dates
00030	Arizona Blue Cross	10/01/86 — 12/31/88
00080	Maryland Blue Cross/DC	06/01/87 — 09/30/87
00190	Maryland Blue Cross	06/22/87 — 12/31/88
00400	Texas Blue Cross	12/07/87 — 12/31/88

How To Use This Information

There are several key points to remember about the use of this information. **First, it is important to understand that the difference between the hospitals' mortality rates and the predicted rates in the tables in this report may not be a direct measure of the quality of care rendered in the hospitals.**

Second, the usefulness of this information depends upon the accuracy with which mortality rates can be predicted. We do not currently have any direct measurement tool with which we can fully adjust for severity of patient illness differences among hospitals. For instance, two hospitals may have very different death rates for patients admitted for stroke, even after we have adjusted for age, sex, and several other factors. This might happen because one hospital's stroke patients may consist of a significant number who are admitted in a coma (and are thus more likely to die), whereas another hospital's patient population may represent a broader spectrum of patients with cerebrovascular problems, or because these two hospitals, in fact, do provide different levels of quality of care. In addition, other factors affecting the probability of death in a particular case (e.g., family status/support, overall health status of the patient, etc.) are not included in the predictive model because information on them is not readily available.

Nevertheless, we believe that the information presented in this publication is an important contribution to the health care community and should be helpful to a wide range of individuals and organizations including consumers, hospital administrators, physicians, PROs, and researchers.

Use By Consumers — Some Key Questions

Consumers should read carefully the explanations of the uses and limitations of the information. Listed below are some questions that we recommend a consumer think about before choosing a hospital. Please keep in mind that this is not a comprehensive list, but it should serve to illustrate the types of questions that are important to consider.

- Why are the hospital's observed mortality rates for "All Causes" consistently and significantly above the predicted rates for FY 1990?

- Why are the hospital's observed mortality rates for the condition for which I need treatment or the procedure I will undergo consistently and significantly above the predicted rates for FY 1990?

- How does this hospital's pattern of mortality compare with that of other hospitals in the State and Nation?

- Is the number of cases too small to present a satisfactory picture of the hospital?

- Does the hospital treat a large number of cases in the category for which I need treatment?

- Does the hospital treat a large number of patients who have several co-existing illnesses or who otherwise are likely to be "sicker" than average?

Other Users Of This Publication

Among other users of this publication, we expect that the hospital administrator (in consultation with medical staff) will find the information most useful as a screening tool to evaluate a hospital's strengths and weaknesses. We know that some hospitals and their medical staffs, using established and newly emerging quality assessment techniques, are seeking information that will result in improved health care delivery.

Outside Assistance In Developing This Publication

The development and presentation of the Medicare Hospital Information report continues to be an important part of HCFA's responsibilities in the health care community. To make the information as accurate and useful as possible, over the past several years we have discussed the theoretical framework and statistical approach with a number of nationally recognized technical experts in appropriate fields. Based on their recommendations, we believe that the models used in these analyses continue to be reasonable and appropriate.

In the past, we have conducted validation studies of our methodology. In general, these studies have found correlation between poor quality care and hospitals whose observed mortality rates significantly exceed the rates that would have been predicted. However, we have also found that detailed clinical data which more thoroughly characterize the severity of patient's illness, while they do not materially affect results describing the general pattern of mortality, do, in specific instances, alter our assessment of the comparison of the observed to the predicted mortality rates.

The format for presentation, the process for sharing the information with individual hospitals, and the statistical methodology have been discussed at various meetings with leaders of organizations representing Medicare beneficiaries, physicians, and hospitals. Also, we have spent many months reviewing the comments received from the hospitals regarding their patient-specific data for earlier years and our previous mortality information reports. Many suggestions from these sources have been incorporated into this report.

We have carefully investigated comments from individual hospitals on apparent discrepancies or errors generated in previous years. These discrepancies rarely had an effect on a hospital's overall mortality rate. Most of these instances fell into the following two broad categories.

- **Inaccurate Date of Death** — We found that inpatient billing coding errors (e.g., a hospital bill indicating that the patient's status at time of discharge was "expired" when the patient had, in fact, left the hospital alive) created many of these errors. We now have mechanisms in place that allow a continuous update of HCFA's master file, thereby enabling us to make corrections.

- **Discrepant Case Counts** — Our analysis counts only one acute care discharge in a fiscal year; normally, hospitals count each discharge. Thus, a patient admitted three times in a year would count three times for the hospital, but only once for the purpose of analyzing Medicare hospital mortality data presented in this report.

We believe it is important for consumers of health care to have access to as much information about hospitals as possible when making health care choices. Along with hospital characteristics information, we have added this year information about the origin and length of stay of Medicare admissions. This information is presented for comparative purposes only and was not used in calculating a hospital's predicted mortality rates. These data were not part of the analyses, and any errors or discrepancies in them do not affect the predicted mortality rates.

Origin of Medicare Admissions

Data on the geographic origin of each hospital's patients are presented in this year's report. We obtained from the Health Insurance Master file the State and county of residence for each Medicare beneficiary discharged from a Medicare-certified, acute care hospital during FY 1990. We then compared that information with the location of the hospital to determine the percentage of all discharges where the patient lived within the same city/county as the hospital location, within the State where the hospital is located, or outside the State. The percentages are derived by dividing the number of discharges of beneficiaries in a geographic category by the total number of Medicare discharges from the hospital. Please note that these are percentages of total Medicare discharges, not of the mortality sample alone.

Medicare Average Length of Stay

We obtained from the MEDPAR file the total days of care—both Medicare covered and noncovered—and divided that total by the number of discharges from each hospital. Total, rather than covered, days were used because, under the Prospective Payment System (PPS), if a Medicare patient has at least one day of hospital coverage available to him in the current spell of illness, the hospital will be paid the full diagnosis related group (DRG) amount plus any approved outlier amount, regardless of the number of days actually used.

Example: Hospital A had 2,513 Medicare discharges with a total of 24,379 days.

Calculation: $\frac{24{,}379}{2{,}513} = 9.7$ days

The Medicare average length of stay is 9.7 days.

Hospital Characteristics

As noted previously, we have again included information on selected hospital characteristics such as the number of beds, occupancy rate, ownership, staffing, and specialty services. This information was obtained from the American Hospital Association's (AHA) 1990 Annual Survey of Hospitals, with the exception of the case mix index (CMI), which was derived from HCFA billing data. This file consists of information voluntarily reported by hospitals to the AHA. In instances where AHA data were unavailable, for example for hospitals that did not respond to the AHA survey, we derived the information from HCFA's Online Survey, Certification and Reporting system (OSCAR). The hospital characteristics and the specific special services listed were selected with the concurrence of the AHA as being those most meaningful to the Medicare population. Information on these specific data elements follows.

AHA Definitions (except for CMI)

Survey and Year — AHA 1990. Source is the American Hospital Association's 1990 Annual Survey of Hospital files.

Profile

Total beds (#) — Number of beds (including subacute beds), cribs, and pediatric and neonatal bassinets regularly maintained (set up, staffed, and ready for use) for inpatients as of the close of the reporting period; does not include bassinets for normal newborn infants.

Occupancy rate (percent) — Ratio of average daily census to the average number of beds (statistical beds) maintained during the 12-month reporting period. (NOTE: The number of these "statistical beds" may differ from the bed count at the close of the reporting period.)

Ownership/control — State government, local government, district/authority, church, private nonprofit, private for profit, or Federal Government.

Medicare discharges — The total number of inpatient discharges for Medicare patients for those hospitals selected for the mortality calculations, including all discharges for persons with more than one hospitalization during the year. (The mortality data include only one randomly selected discharge for each hospitalized enrollee. Therefore, this figure may reflect more discharges than the actual number of cases randomly selected for the mortality study.)

Case mix index (CMI) — A measure of the overall complexity of the Medicare cases treated by a given hospital compared to the complexity of the national average case mix. The CMI represents the relative costliness of each hospital's mix of cases compared to the national average mix of cases. A CMI of greater than one means that a hospital treats more complex cases than average. A CMI of less than one means that a hospital treats less complex cases than average. The CMI for each hospital is calculated on an annual basis. In this report, the CMI presented for each hospital is calculated based on its discharges in FY 1990.

A hospital's CMI is calculated by multiplying the number of cases in each DRG by the relative weight of that DRG, summing the products, and dividing the sum by the total number of cases for the year. For calculating the FY 1990 CMI, use the DRG relative weights published in the *Federal Register*, Volume 54, Number 169, pages 36468 ff., dated September 1, 1989.

Staffing (all AHA counts are as of 9/30/90)

Total number of physicians — Total active and associate medical staff.

Percent of physicians who are board-certified specialists — Physicians who have passed an examination given by a medical specialty board and have been certified by that board as a specialist.

Medical residents/interns — Full-time equivalent (FTE) medical residents or interns.

Registered nurses — Full-time equivalent (FTE) registered nurses.

Licensed practical nurses — Full-time equivalent (FTE) licensed practical nurses.

Specialty Services

Burn Unit — Provides more intensive care to severely burned patients than the usual acute nursing care provided in medical and surgical units. Beds must be set up and staffed in a unit specifically designated for this service.

Cardiac Intensive Care — Provides patient care of a more specialized nature than the usual medical and surgical care, on the basis of physicians' orders and approved nursing care plans. The unit is staffed with specially trained nursing personnel, and contains monitoring and specialized support or treatment equipment for patients who, because of heart seizure,

open-heart surgery, or other life-threatening conditions, require intensified, comprehensive observation and care. May include myocardial infarction, pulmonary care, and heart transplant units. Beds must be set up and staffed in a unit(s) specifically designated for this service.

Comprehensive Geriatric — Provides diagnostic and evaluation services that determine elderly patients' long-term care needs. It includes the assessment of medical conditions, functional activities, and mental and emotional conditions, and incorporates these into a treatment plan which includes family and financial concerns as well as medical needs.

Hospice Care — A program providing primarily medical relief of pain and support services to terminally ill patients and assistance to their families in adjusting to the patients' illness and death.

Medical/Surgical Intensive Care — Provides nursing care to adult and/or pediatric patients of a more intensive nature than the usual medical, surgical, pediatric, and/or psychiatric care on the basis of physicians' orders and approved nursing care plans. Included are medical-surgical, pediatric, and psychiatric (isolation) units. These units are staffed with specially trained nursing personnel, and contain monitoring and specialized support equipment for patients who, because of shock, trauma, or life-threatening conditions, require intensified, comprehensive observation and care. These units may also include cardiac care when such services are not approved in a distinct cardiac care unit. This category is called "intensive care unit" in OSCAR.

Organ/Tissue Transplant — The hospital has the necessary staff and equipment to perform the surgical removal of a viable human organ or tissue from a donor, either living or deceased, and the surgical grafting of the organ/tissue to a suitably evaluated and prepared patient.

Other Intensive Care — Provides nursing care to adult and/or pediatric patients with a specialized disease or condition of a more intensive nature than the usual medical, surgical, pediatric, and/or psychiatric care on the basis of physicians' orders and approved nursing care plans. Examples reported include oncology or spinal cord injuries. These units are staffed with specially trained nursing personnel and contain monitoring and specialized support equipment appropriate for the patients' specialized conditions.

Trauma Center — Provides emergency and specialized intensive care to critically injured patients.

Other Specialty/Hospital-Based Services

Alcohol/Drug — Hospital services for the medical care and/or rehabilitative treatment of outpatients whose primary diagnosis is alcoholism or other chemical dependency.

Rehabilitation — A unit having designated beds and providing a comprehensive array of multidisciplinary medical rehabilitation services.

Psychiatric — Care provided to emotionally disturbed, chronically mentally ill, mentally disordered, or other mentally incompetent patients on the basis of physicians' orders and approved nursing care plans. Beds must be set up and staffed in units specifically designated for this service.

Medicare Swing Beds — The hospital is certified by Medicare to provide "swing bed" services; that is, some acute care beds can be used for skilled nursing facility type care in the hospital for Medicare purposes.

OSCAR Definitions (except for CMI)

Survey and Year — HCFA, most recent year. Data were derived from the Online Survey, Certification and Reporting System (OSCAR).

Profile

Total beds (#) — Total number of operational beds eligible for Medicare payment.

Ownership/control — Church; private, nonprofit; other nonprofit; proprietary; Federal Government; State government; local government; and hospital district or authority.

Case mix index (CMI) — See definition shown in AHA "Profile" section.

Staffing

Medical residents/interns — Full-time equivalent (FTE) medical residents or interns.

Registered nurses — Full-time equivalent (FTE) registered nurses.

Licensed practical nurses — Full-time equivalent (FTE) licensed practical nurses.

Specialty Services

NOTE: There are no specific definitions of specialty services in OSCAR. Characteristics are self-reported by each hospital at initial Medicare certification and recertification, and are generally understood to parallel the explicit AHA definitions (above). The AHA categories "comprehensive geriatric" and "other intensive care" are not available in OSCAR. However, they may be included in the OSCAR category of other specialty services (not shown in table).

Coronary Care — See definition shown in AHA "Specialty Services" section.

Intensive Care Unit — See definition shown in AHA "Specialty Services" section. These units may also include other intensive care units in OSCAR reporting.

Organ Transplant — See definition shown in AHA "Organ/Tissue Transplant" section. May include tissue transplants because there is not a separate field in OSCAR for these services.

TECHNICAL INFORMATION

Data Sources

The data analyzed in this report are obtained from the Medicare Provider Analysis and Review (MEDPAR) file for the fiscal years 1987-1990, which contains information on the hospital stays of Medicare beneficiaries. The principal sources of data for this file are the bills (known as HCFA-1450 or UB-82) submitted by the hospitals to HCFA through fiscal intermediaries. The MEDPAR file also contains data about the beneficiaries, such as age, sex, and date of death, which are obtained from the Social Security Administration, the Railroad Retirement Board, or the Office of Personnel Management.

Hospital stays with discharges in fiscal years 1988, 1989, and 1990 were used in these analyses. Hospital stays in 1987 were used only to characterize the prior admissions of the patients in the 1987 cohort. Only acute care hospital stays in short-term (general and specialty) hospitals were selected. These hospitals have a "0" in the third position of their Medicare provider number. Hospital stays in institutions (designated by a "9" in the fourth position of the provider number) and hospital stays in psychiatric units, rehabilitation units, swing-beds and alcohol/drug units (with "special unit codes" of S, T, U and V, respectively, in the third position) were excluded.

The Mortality Model

For each beneficiary in each year one hospitalization was selected at random. Choosing a specific hospitalization is necessary to avoid multiple counting of the same death for that year. Selecting a random hospitalization instead of the first or last in the year produces mortality rates that are more representative of the rates that a hospital might calculate for its patients. Also, the mortality rates based on this random selection process reflect an intermediate position between the rates produced by the alternatives.

The selected hospital stays were analyzed separately by analytical category. The analytical categories were created by grouping ICD-9-CM diagnosis codes that had similar mortality patterns. The procedures for creating the analytical categories and the groups of ICD-9-CM diagnosis codes that defined them are detailed in the Technical Supplement.

The mortality experience of the patients was evaluated as a function of time within 365 days of the admission. The factors included in the mortality model used to evaluate each patient's probabilities of death are given in Table 3. They consist of demographic characteristics (age and sex), major comorbidities (chronic diseases likely to have been present at admission and believed to

complicate management and increase the likelihood of an adverse outcome), prior admissions (grouped into five risk or severity levels) within the 6 months preceding the admission evaluated, admission type (emergent, elective, etc.), and admission source (referral from the physician's office, the nursing facility, etc.). The specific reason for the admission (the principal diagnosis) and the performance of selected surgical procedures were additional factors used in the estimation of the predicted probability of death (see below).

The observed mortality rate for a hospital was calculated by means of the lifetable method ("The LIFETEST Procedure," Chapter 22, SAS User's Guide: Statistics, Version 5 Edition, pages 529-557).

ANALYTIC TECHNIQUES

A time-to-event or survival model with explanatory or concomitant variables was used to ascertain the influence of the patient characteristics listed above on the probability of death. A feature of such a model is allowance for "right censored" observations. Generally, these are events or outcomes which would have occurred but for some interference that prevents further observation. In the present analysis, "right censoring" occurs when a patient is withdrawn alive from the study April 1, 1991 or at the end of the followup period of 365 days.

The survival function, S(t), is one of several equivalent ways of expressing the model. Another form uses the cumulative distribution function or the mortality function

$$F(t) = 1 - S(t).$$

Another useful formulation of these models is the hazard function, h(t), also known as the force of mortality or risk function. The hazard is the rate of decrease in the number of survivors relative to the number of survivors at a specific time. Mathematically, the hazard function is

$$h(t) = -\frac{1}{S(t)}\frac{dS(t)}{dt} = -\frac{d\ln(S(t))}{dt}.$$

The probability density function, f(t), commonly used in statistical texts can be expressed as follows:

$$f(t) = \frac{dF(t)}{dt} = h(t)S(t).$$

The area under the survival curve is the expected value for t. In some cases, the area under the survival curve is restricted to an interval $0\text{-}t_l$ where t_l might be one year, for example.

The specific time-to-event or survival model used in the present analysis is Bailey's modification of the Makeham model. The survival function for the Bailey-Makeham model is

$$S(t) = \exp\left\{-\delta t - \left(\frac{\alpha}{\gamma}\right)(1 - \exp(-\gamma t))\right\}$$

where

$$\alpha = \exp(\alpha_0+\alpha_1 x_1+\ldots+\alpha_i x_i+\ldots+\alpha_k x_k)$$
$$\gamma = \exp(\gamma_0+\gamma_1 x_1+\ldots+\gamma_i x_i+\ldots+\gamma_k x_k)$$
$$\delta = \exp(\delta_0+\delta_1 x_1+\ldots+\delta_i x_i+\ldots+\delta_k x_k)$$

are the expressions for each of the structural parameters α, γ, and δ in terms of the k concomitant variables x_i and their associated component parameters α_i, γ_i, and δ_i for i=1, 2,..., k and three intercepts or component parameters α_0, γ_0, and δ_0. The structural parameter δ is the long-term risk which is approached as $t \rightarrow \infty$. The structural parameter α is the initial excess risk which decays with rate constant γ.

For the survival function given above, the risk or hazard function has an especially tractable form of an exponential decay which approaches a long-term risk, δ. The hazard function corresponding to the survival function above is

$$h(t) = \alpha\exp(-\gamma t) + \delta .$$

The estimation of the component parameters was carried out in a series of steps in which those covariates which had estimable and statistically significant ($p<0.05$) influences of the probability of death were identified for inclusion in the model. As the model for each of the 23 risk categories was estimated separately, different lists of covariates were used for the final core models.

This first step was followed by the estimation of the additional contribution of specific principal diagnoses in each risk category. In these analyses, the effects of the patient characteristics included in the core models were corrected for. Only those principal diagnoses were retained which were estimable and had more than 900 cases (more than 300 for codes identified by year). Similarly, after adjustment for the effects of both the variables in the core model and the principal diagnoses, correction terms were calculated to estimate the additional information about the probability of death associated with the categorization of the patients into the clinical groups used for the presentation of the data in the mortality tables (see below). These correction terms were negligible for the medical categories but substantial for the surgical categories.

Once the component parameters or regression coefficients α_i, γ_i, and δ_i have been estimated, the predicted probability of patient death at any specified time after admission, 1-S(t), may be calculated for all individuals. To obtain the predicted mortality rate up to a given time for a hospital, it is then only necessary to average over the predicted probabilities of death of its patients to that time.

The analytical categories are useful for grouping the patients into relatively risk-homogeneous strata for the regressions. However, to gain insights into patterns of practice at hospitals, the data are presented for patients grouped into clinically meaningful medical and surgical categories. The 17 clinical categories used in the mortality tables and defined in Table 1 were identified by the Institute of Medicine as being of particular medical and epidemiologic interest.

Estimation of the Standard Deviation for Predicted Mortality

The standard deviation of the predicted mortality rate is used to assess how statistically different the observed mortality rate is from the rate predicted by the national experience with like patients. The standard deviation depends, in fact, on the variance of the residual or the difference between the observed, P, and predicted, $\hat{\Theta}$, mortality rates.

The residual has four components V_1, V_2, V_3, and V_4 where V_1 is the variance of the estimate of the predicted probability of death. This computationally intensive term was negligible for nearly all cases, compared to other components of variance. Consequently, this term was not included in the present analysis.

V_2 is the binomial variance for n patients

$$V_2 = \frac{\hat{\Theta}\left(1 - \hat{\Theta}\right)}{n}.$$

V_3 is the variation among hospitals not explained by the mortality regression models containing the patient characteristics described above.

$$V_3 = \widehat{\mathrm{Var}(\Theta)} = \left(1 - \frac{1}{n}\right) \widehat{M_2(\Theta)}$$

where

$$\widehat{M_2(\Theta)} = \left\{ \left(\begin{array}{c} \text{Predicted mortality} \\ \text{on basis of} \\ \text{patient characteristics and} \\ \text{adjustment for hospital effects} \end{array} \right) - \left(\begin{array}{c} \text{Predicted mortality} \\ \text{on basis of} \\ \text{patient characteristics,} \\ \text{but omitting the hospital specific effects} \end{array} \right) \right\}^2 \left(\frac{1}{z_p^2} \right)$$

The quantity z_p corresponds to the statistical significance (p-value) of the hospital-specific effect.

V_4 is the variation not explained by the mortality regression models which each include, in addition, an indicator variable for the hospital:

$$V_4 = \left\{ \left(\text{Observed mortality} \right) - \left(\begin{array}{c} \text{Predicted mortality} \\ \text{on basis of} \\ \text{patient characteristics, and} \\ \text{adjustment for the hospital specific effects} \end{array} \right) \right\}^2 .$$

(The regression coefficients of the indicator variable for the hospital are a measure of the influence on the probability of patient death of factors not otherwise specified in the model. These factors include severity of illness not adequately reported on by the patient characteristics deduced from the claims data and the hospital's pattern of practice; i.e., performance.)

The standard deviation given in the mortality tables is just

$$SD = \sqrt{V_2 + V_3 + V_4}.$$

Standardized Mortality Ratio (SMR)

Another method of evaluating a hospital's performance—the Standardized Mortality Ratio (SMR)—is obtained by dividing the observed mortality rate by the predicted mortality rate. An SMR of one means the observed and predicted mortality are equal. A ratio greater than one means the observed mortality exceeds the predicted. A ratio less than one means the observed mortality is less than expected. The more extreme the ratio (significantly greater than one indicating unusually high mortality and significantly less than one indicating unusually low mortality), the greater the attention which should be paid to the results of this mortality report.

For each of the conditions and procedures, selected percentiles for the observed distribution of the SMR are displayed in Table 4. The selected percentiles provide benchmarks for comparison. For example, for a hospital

with 300 cases in the "All Causes" category, with observed mortality of 12.2 percent and predicted probability of 10.0 percent at 30 days, the standardized mortality ratio is

SMR = 12.2/10.0 = 1.22.

Note that an SMR of one means the observed and predicted mortality are equal, while a ratio greater than one means the observed mortality exceeds the predicted, and a ratio less than one means the observed mortality is less than expected. There will be greater interest in the more extreme ratios, either greater than one — excessively high mortality — or less than one — extremely low mortality.

From Table 4 for FY 1990, we find that the ratio is just below the 75th percentile of 1.23. Hence, slightly under 75 percent of the hospitals have an SMR less than that found at this hospital.

However, for a hospital with 900 cases in the "All Causes" category, with observed mortality of 19.3 percent and predicted probability of 10.0 percent at 30 days, the standardized mortality ratio is

SMR = 19.3/10.0 = 1.93.

Since the SMR of 1.93 is greater than the 97.5 percentile of 1.35 (Table 4 for 750 or more cases), there is cause for concern. To further assess this, we examine the displayed data in terms of the measure of uncertainty, the standard deviation.

Measures of Uncertainty

In principle, to use the standard normal approximations to determine prediction intervals, an adjustment must be applied for the skewness and kurtosis inherent in a mortality rate when the rate is considerably less than 50 percent and the number of cases is small. Table 5 presents the multiplicative factors, based on the binomial distribution, for the standard deviation needed to construct prediction intervals for the mortality rates at confidence levels of 75, 95 and 99 percent. Because of the approximations involved in the estimation of the skewness and kurtosis corrections, their precision decreases as the number of cases and the mortality rate decrease; i.e., as the value of the correction increases. In addition, because of simplifications and approximations in the estimation of the standard deviation, the precision of the multiplicative factors given in Table 5 exceeds the precision of the estimate of the standard deviation. Hence, the following rule-of-thumb represents an adequate approximation to the factors in Table 5 and an adequate guide to the **statistical meaningfulness** of the difference between the observed and the predicted mortality rates.

To illustrate the use of Table 5, consider a hospital with 75 cases and a predicted mortality of 13.0 percent with a standard deviation of 5.0 percent. Overall, for hospitals with patients with characteristics similar to those of this hospital, we would expect the actual or observed mortality rate to lie, 95 percent of the time, either between 13.0 percent and 22.9 percent if the actual is larger than the predicted, or between 3.3 percent and 13.0 percent if the actual is less than the predicted. That is because 22.9 percent = 13.0 percent + 1.98 x 5.0 percent, the factor 1.98 having been read from the section of Table 5 with the heading "95 Percent Prediction Interval" and "Factor for Upper Bound," the row "75" for the number of cases, and, by interpolation, between the "10 percent" and the "20 percent" predicted mortality rate columns. Similarly, 3.3 percent = 13.0 percent - 1.94 x 5.0 percent, the factor -1.94 having been read from the section of Table 5 with the heading "95 Percent Prediction Interval" and "Factor for Lower Bound" and the corresponding row and columns.

Therefore, in comparing the actual and predicted rates, more attention should be given to the hospital whose observed mortality rate lies beyond the bounds calculated for the 99 percent prediction interval than to the hospital whose observed mortality rate lies only beyond the bounds calculated for the 95 percent prediction interval. Likewise, more attention should be given to that hospital than to the hospital whose observed mortality rate lies only beyond the bounds calculated for the 75 percent prediction interval.

For the graphs, the observed mortality and an approximate 95 percent prediction interval are displayed. The prediction interval has bounds at the predicted mortality plus 2 times the standard deviation and at the predicted minus 2 times the standard deviation.

In the mortality rate tables, the observed and predicted mortality rates and the standard deviation as a measure for statistical importance of the difference are displayed for the overall and each of the conditions and procedures.

How To Obtain Medicare Hospital Information

The publication has been widely distributed to State health organizations and hospital and medical associations. The publication is available to the public for purchase in 55 volumes, with each volume being sold separately through the Government Printing Office (GPO). More detailed information about the purchase of this publication may be obtained by contacting:

Superintendent of Documents
Government Printing Office
Washington, D.C. 20402
Telephone: (202) 783-3238

As in prior years, the information appearing in the Medicare Hospital Information report is available in machine-readable/electronic format (tape and diskette). The Medicare Hospital Information public use file provides the published information as contained in the 55-volume hardcopy publication, except that the AHA's hospital characteristics are not on this file. Hospital characteristics from HCFA files (OSCAR) are provided instead. The files contain additional information which is useful for supplemental analyses: averages by hospital, MSA, and State for each of the variables used in the model, mortality rates for 15, 30, 60, 90 and 180 days, and cross-reference files which relate State, MSA, and ICD-9-CM codes used to a name. These data should allow analysts to assess an individual hospital's performance in comparison to all hospitals in the State or applicable MSA.

Also available to **hospitals** in machine-readable format is their patient-specific data that were used in the report. These data include the patient variables used in the analysis (e.g., the number and severity level of prior hospitalizations considered by the methodology, admission source and type, etc.) and the predicted probability of death at each time interval for each individual included in the study. With these data it is possible for hospitals to better understand their statistics. **Due to confidentiality considerations, requests for patient-specific data must be forwarded on hospital letterhead, must include the institution's Medicare provider number, and must be signed by the hospital administrator.**

For information about obtaining Medicare Hospital Information electronic media data, please contact HCFA's Bureau of Data Management and Strategy at:

Health Care Financing Administration
Bureau of Data Management and Strategy
Office of Statistics and Data Management
3-A-10 Security Office Park Building
6325 Security Boulevard
Baltimore, Maryland 21207
Telephone: (410) 597-5151

Table 1

DIAGNOSTIC AND PROCEDURE CATEGORIES

The following lists the ICD-9-CM diagnostic and procedure codes used to classify and group patients for presentation

CONDITION/PROCEDURE	ICD-9-CM CODES *(D)=Diagnosis code* *(P)=Procedure code*
Heart Disorders/Procedures	
Acute Myocardial Infarction (AMI)	All of 410 (D) (on 10/1/89 exclude 410 with 5th digit of a 2)
Note: *For code 410 a 5th digit was added on October 1, 1989.*	
Congestive Heart Failure (CHF)	398.91, 402.01, 402.11, 402.91, 428.0, 428.1, 428.9 (all D)
Angioplasty (ANGPLSTY)	All of 36.0 (P) excluding 36.00, 36.03, 36.04, 36.09 (all P)
Note: *Code 36.0 had a 4th digit added on October 1, 1986. Code 36.0 got digits of 0, 1, 2, 3, and 9, and code 36.04 got some previously coded cases of 39.97. On October 1, 1987, code 36.01 was divided into 36.01 and 36.05, and some cases from 36.02 were put into 36.05.*	
Coronary Artery Bypass Graft (CABG)	All of 36.1(P) and not Angioplasty (see above)
Pacemaker Insertion, Initial (PACE)	37.73, 37.74, 37.75, 37.77 (after 10/1/87 use 37.70 through 37.73) (all P)
Note: *Code 37.70 was restructured on October 1, 1987. Previously the code contained both leads and devices. On October 1 these were separated and devices were coded as 37.80 through 37.83, and codes for the leads were changed into various 37.70 codes.*	

CONDITION/PROCEDURE	ICD-9-CM CODES *(D)=Diagnosis code* *(P)=Procedure code*
Pulmonary Disorders	
Pneumonia/Influenza (PNU)	All of 480, all of 481, 482.2, 482.3, 482.9, 483, 485, 486, 487.0 (all D)
Chronic Obstructive Pulmonary (COPD)	All of 491, all of 492, all of 494, Disease all of 496; and 466.0, 518.82, 518.5, and 786.09 when there is a secondary diagnosis of any 496 (all D)
Note: *Code 518.8 got a 5th digit on October l, 1987. Some cases from 799.1 were put into codes 518.81 and 518.82.*	
Cerebrovascular Disorders/Procedures	
Transient Cerebral Ischemia (TCI)	433.1, 433.3, 435 (D) and exclude those patients with an endarterectomy at the time of admission—38.12(P)
Stroke (STK)	431, 434 through 434.9, 436 (all D)
Carotid Endarterectomy (ENDART)	38.12 (P) with 433.1 (D); 433.3 (D) or 435(D) as a principal diagnosis
Musculoskeletal Disorders/Procedures	
Fracture of Neck of Femur (FXHIP)	All of 820 (D)
Hip Replacement/Revision (HIPREP)	81.5, 81.6 (exclude 81.69) (all P). On 10/1/89 code 81.51 (P) through 81.53 (P) with same diagnoses.
Open Reduction of Fractured Femur (OPRDUX)	79.35(P) on condition of 820 (D) as principal diagnosis

CONDITION/PROCEDURE	ICD-9-CM CODES *(D)=Diagnosis code* *(P)=Procedure code*
Genitourinary Disorders/Procedures	
Prostatectomy (PROS)	60.2, 60.3 through 60.69 (all P)
Hysterectomy (HYS)	68.3 through 68.7 (P)
Gastrointestinal Disorders/Procedures	
Cholecystectomy (CHOLOTMY)	51.22 (P)
Sepsis	
Sepsis	003.1, 020.2, 022.3, 036.2, 036.3, 036.89, 036.9, 038.0, 038.1, 038.2, 038.3, 038.40, 038.41, 038.42, 038.43, 038.44, 038.49, 038.8, 038.9, 054.5

Table 2

COMORBIDITY CONDITIONS

(all are D codes)

COMORBIDITY	ICD-9-CM CODES
Cancer	141-160.9, 162-172.9, 174-208.91
Chronic cardiovascular disease	412-414.9, 426-429.1
Chronic liver disease	571-572.8
Chronic renal disease	582-583.9, 585-587, 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93
Chronic diabetes	250.01, 250.1-250.91
Chronic pulmonary disease	491-493.91, 496
Cerebrovascular degeneration	290-290.9, 294-299.9

Table 3

EXPLANATORY VARIABLES FOR THE MORTALITY MODEL

Generally the same variables are used for all diagnostic categories.

Demographics

SXFM — An indicator variable: = 1 if Female, 0 otherwise

AGEFM = AGESP if SXFM = 1, 0 otherwise
AGEML = AGESP if SXFM = 0, 0 otherwise

where

$$AGESP = \text{sign}(W-65)\left(\left|\frac{W-65}{65}\right|\right)^{1.44}$$

and

$$W = \left\{ \begin{array}{c} 23 \text{ if } AGE \leq 23 \\ AGE \text{ if } 23 < AGE < 100 \\ 100 \text{ if } 100 \leq AGE \end{array} \right\}$$

Comorbidities		**ICD-9-CM Codes**
(Indicator variables = 1 if comorbidity present on current or prior admission with discharge within 6 months prior to current admission, 0 otherwise)		
CCA	Cancer	141-160.9, 162-172.9, 174-208.91
CCV	Chronic cardiovascular disease	412-414.9, 426-429.1
CLV	Chronic liver disease	571-572.8
CRN	Chronic renal disease	582-583.9, 585-587, 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93
CDI	Chronic diabetes	250.01, 250.1-250.91
COP	Chronic pulmonary disease	491-493.91, 496
CCE	Cerebrovascular degeneration	290-290.9, 294-299.9

Co Occurrence of Comorbidities

COP_CCV	1 if COP = 1 and CCV = 1, 0 otherwise
CCA_CCV	1 if CCA = 1 and CCV = 1, 0 otherwise
COP_CCA	1 if COP = 1 and CCA = 1, 0 otherwise
CCE_CCV	1 if CCE = 1 and CCV = 1, 0 otherwise
CRN_CCV	1 if CRN = 1 and CCV = 1, 0 otherwise

Admission Sources and Types

(Indicator variables = 1 if source or type present, 0 otherwise)

PREF	Patient referred by personal or HMO physician
TRSNF	Patient transferred from skilled nursing facility
ELCT	Patient admitted for elective procedure
EMRG	Patient admitted for emergency

Co-Occurrence of Admission Source and Type

PREF_ELEC = 1 if PREF = 1 and ELCT = 1, 0 otherwise

Previous Hospitalizations

P_RISK1	Number at 1st risk level with 3 or more set to 3
P_RISK2	Number at 2nd risk level with 3 or more set to 3
P_RISK3	Number at 3rd risk level with 3 or more set to 3
P_RISK4	Number at 4th risk level with 4 or more set to 4
P_RISK5	Number at 5th risk level with 3 or more set to 3
F(T)	Probability of death from previous admission if discharge within 182 days of current admission, 0 otherwise

Time Trend

FLAG89	1 if discharge in FY1989, 0 otherwise
FLAG90	1 if discharge in FY1990, 0 otherwise
INYEAR	Difference between current admission date and April 1 of fiscal year of discharge

TABLE 4
SMR DISTRIBUTION FOR HOSPITALS WITH GREATER THAN 50 CASES
1990 STUDY, FY1990

CONDITIONS/PROCEDURES	NUMBER OF HOSPITALS	30 DAYS					90 DAYS					180 DAYS				
		2.5%	25%	50%	75%	97.5%	2.5%	25%	50%	75%	97.5%	2.5%	25%	50%	75%	97.5%
OVERALL(< 750 CASES)	2645	0.45	0.88	1.04	1.23	1.72	0.56	0.90	1.03	1.17	1.54	0.61	0.90	1.02	1.15	1.46
OVERALL(>= 750 CASES)	2684	0.73	0.91	0.99	1.09	1.35	0.79	0.94	1.01	1.09	1.28	0.82	0.94	1.01	1.08	1.24
CONDITIONS																
AMI	1405	0.54	0.80	0.95	1.11	1.42	0.62	0.86	0.99	1.14	1.44	0.63	0.86	0.99	1.13	1.39
CHF	2335	0.43	0.79	0.98	1.17	1.64	0.60	0.85	0.99	1.13	1.49	0.66	0.89	1.00	1.13	1.41
PNEUMONIA/INFLUENZA	2428	0.41	0.78	0.97	1.18	1.68	0.53	0.84	1.00	1.17	1.55	0.57	0.86	1.01	1.16	1.50
COPD	435	0.00	0.63	0.97	1.34	2.06	0.30	0.78	1.02	1.26	1.74	0.40	0.82	1.01	1.24	1.69
TRANS. CEREBRAL ISCHEMIA	404	0.00	0.00	0.83	1.34	3.20	0.00	0.48	0.85	1.31	2.27	0.21	0.60	0.90	1.21	2.05
STROKE	1789	0.53	0.79	0.95	1.13	1.56	Q.61	0.84	0.98	1.13	1.47	0.65	0.87	0.99	1.12	1.42
HIP FRACTURE	1199	0.21	0.67	0.93	1.27	2.10	0.40	0.76	0.94	1.19	1.80	0.47	0.78	0.97	1.16	1.64
SEPSIS	254	0.51	0.79	0.96	1.12	1.50	0.65	0.86	0.99	1.13	1.47	0.69	0.89	1.01	1.15	1.44
PROCEDURES																
ANGIOPLASTY	425	0.00	0.49	0.89	1.33	2.66	0.00	0.60	0.93	1.36	2.34	0.00	0.63	0.97	1.34	2.14
CABG	556	0.20	0.68	1.03	1.39	2.45	0.28	0.73	1.00	1.32	2.09	0.28	0.73	1.01	1.30	2.10
PACEMAKER	112	0.00	0.41	0.72	1.37	3.25	0.20	0.61	0.90	1.21	2.17	0.21	0.65	0.84	1.16	1.87
CAROTID ENDARTERECTOMY	73	0.00	0.00	0.85	1.33	2.90	0.00	0.14	0.74	1.28	2.43	0.00	0.42	0.86	1.38	2.86
HIP REPLACEMENT	763	0.00	0.53	0.94	1.44	2.77	0.19	0.67	0.96	1.31	2.12	0.26	0.71	0.94	1.26	1.91
REDUCT. OF HIP FRACTURE	276	0.00	0.56	0.86	1.22	2.05	0.31	0.68	0.92	1.19	1.76	0.38	0.77	0.96	1.12	1.58
PROSTATECTOMY	1576	0.00	0.00	0.73	1.57	3.56	0.00	0.49	0.91	1.40	2.63	0.00	0.57	0.92	1.29	2.21
CHOLECYSTECTOMY	714	0.00	0.49	0.95	1.54	2.68	0.00	0.62	0.93	1.37	2.22	0.22	0.67	0.98	1.27	1.93
HYSTERECTOMY	113	0.00	0.00	0.00	2.00	6.69	0.00	0.00	0.76	1.70	3.59	0.00	0.24	0.75	1.27	2.91

TABLE 4
SMR DISTRIBUTION FOR HOSPITALS WITH GREATER THAN 50 CASES
1990 STUDY, FY1989

CONDITIONS/PROCEDURES	NUMBER OF HOSPITALS	30 DAYS					90 DAYS					180 DAYS				
		2.5%	25%	50%	75%	97.5%	2.5%	25%	50%	75%	97.5%	2.5%	25%	50%	75%	97.5%
OVERALL(< 750 CASES)	2746	0.50	0.87	1.04	1.23	1.73	0.58	0.89	1.03	1.17	1.54	0.61	0.89	1.01	1.14	1.44
OVERALL(>= 750 CASES)	2669	0.71	0.90	1.00	1.09	1.35	0.79	0.94	1.01	1.08	1.28	0.82	0.95	1.01	1.07	1.24
CONDITIONS																
AMI	1412	0.53	0.81	0.96	1.12	1.47	0.59	0.86	1.01	1.15	1.47	0.63	0.87	1.00	1.14	1.43
CHF	2293	0.47	0.80	0.97	1.18	1.69	0.58	0.86	1.00	1.14	1.48	0.66	0.89	1.02	1.14	1.40
PNEUMONIA/INFLUENZA	2179	0.45	0.77	0.97	1.19	1.67	0.54	0.85	1.01	1.18	1.55	0.60	0.86	1.02	1.18	1.51
COPD	324	0.21	0.68	0.99	1.32	2.13	0.44	0.78	1.04	1.27	1.91	0.49	0.84	1.04	1.24	1.66
TRANS. CEREBRAL ISCHEMIA	420	0.00	0.00	0.79	1.41	3.26	0.00	0.46	0.88	1.33	2.36	0.18	0.60	0.92	1.25	1.97
STROKE	1728	0.53	0.80	0.95	1.12	1.56	0.62	0.85	0.97	1.11	1.46	0.67	0.88	0.99	1.13	1.40
HIP FRACTURE	1126	0.24	0.67	0.95	1.30	2.04	0.39	0.75	0.98	1.21	1.71	0.46	0.78	0.97	1.18	1.59
SEPSIS	174	0.52	0.79	0.94	1.10	1.52	0.63	0.88	1.02	1.15	1.46	0.68	0.93	1.05	1.16	1.43
PROCEDURES																
ANGIOPLASTY	370	0.00	0.46	0.84	1.35	2.55	0.00	0.55	0.88	1.33	2.52	0.00	0.61	0.94	1.32	2.44
CABG	501	0.21	0.65	1.00	1.47	2.57	0.23	0.69	1.00	1.33	2.29	0.32	0.74	1.01	1.33	2.21
PACEMAKER	91	0.00	0.52	0.74	1.12	2.31	0.00	0.56	0.83	1.15	2.14	0.20	0.68	0.81	1.16	1.87
CAROTID ENDARTERECTOMY	55	0.00	0.00	0.82	1.51	5.01	0.00	0.47	0.86	1.31	4.00	0.00	0.43	0.85	1.28	3.12
HIP REPLACEMENT	686	0.00	0.52	0.92	1.44	2.46	0.00	0.65	0.94	1.27	1.95	0.21	0.67	0.94	1.19	1.75
REDUCT. OF HIP FRACTURE	246	0.19	0.57	0.91	1.23	1.96	0.31	0.71	0.96	1.19	1.74	0.41	0.78	0.96	1.13	1.53
PROSTATECTOMY	1570	0.00	0.00	0.67	1.50	3.46	0.00	0.47	0.86	1.36	2.67	0.00	0.58	0.93	1.28	2.15
CHOLECYSTECTOMY	680	0.00	0.53	0.94	1.53	2.90	0.00	0.62	0.97	1.36	2.15	0.22	0.66	0.95	1.26	1.98
HYSTERECTOMY	101	0.00	0.00	0.00	1.80	5.44	0.00	0.00	0.78	1.60	4.21	0.00	0.00	0.91	1.38	2.99

TABLE 4
SMR DISTRIBUTION FOR HOSPITALS WITH GREATER THAN 50 CASES
1990 STUDY, FY1988

CONDITIONS/PROCEDURES	NUMBER OF HOSPITALS	30 DAYS					90 DAYS					180 DAYS				
		2.5%	25%	50%	75%	97.5%	2.5%	25%	50%	75%	97.5%	2.5%	25%	50%	75%	97.5%
OVERALL(< 750 CASES)	2838	0.46	0.89	1.05	1.23	1.75	0.54	0.90	1.03	1.16	1.57	0.59	0.90	1.02	1.14	1.45
OVERALL(>= 750 CASES)	2693	0.73	0.90	1.00	1.10	1.35	0.79	0.94	1.01	1.09	1.27	0.82	0.95	1.01	1.08	1.24
CONDITIONS																
AMI	1414	0.56	0.82	0.96	1.12	1.41	0.63	0.87	1.01	1.14	1.42	0.65	0.89	1.00	1.13	1.39
CHF	2246	0.45	0.79	0.97	1.18	1.61	0.60	0.86	1.00	1.14	1.43	0.68	0.90	1.02	1.13	1.37
PNEUMONIA/INFLUENZA	2069	0.44	0.79	0.97	1.17	1.68	0.57	0.85	1.01	1.17	1.59	0.61	0.87	1.01	1.16	1.53
COPD	310	0.21	0.67	0.92	1.30	2.17	0.39	0.79	0.98	1.20	1.81	0.51	0.82	0.99	1.19	1.59
TRANS. CEREBRAL ISCHEMIA	495	0.00	0.00	0.84	1.48	2.94	0.00	0.48	0.92	1.39	2.28	0.21	0.60	0.92	1.27	1.92
STROKE	1726	0.51	0.79	0.95	1.12	1.56	0.60	0.84	0.98	1.13	1.44	0.64	0.88	1.00	1.13	1.42
HIP FRACTURE	1119	0.24	0.65	0.96	1.27	2.07	0.40	0.78	0.98	1.21	1.77	0.47	0.80	0.98	1.17	1.64
SEPSIS	133	0.58	0.77	0.92	1.08	1.64	0.56	0.86	1.00	1.13	1.54	0.67	0.88	1.02	1.14	1.53
PROCEDURES																
ANGIOPLASTY	297	0.00	0.50	0.87	1.35	2.60	0.00	0.59	0.91	1.34	2.50	0.00	0.65	0.95	1.31	2.25
CABG	478	0.21	0.68	0.98	1.39	2.40	0.32	0.73	1.00	1.36	2.12	0.38	0.75	1.01	1.31	2.04
PACEMAKER	83	0.00	0.34	0.65	1.04	1.75	0.01	0.54	0.85	1.03	1.70	0.23	0.69	0.87	1.10	1.57
CAROTID ENDARTERECTOMY	69	0.00	0.00	0.60	1.23	3.30	0.00	0.33	0.62	1.09	2.50	0.00	0.44	0.68	1.16	1.87
HIP REPLACEMENT	670	0.00	0.49	0.95	1.40	2.65	0.00	0.66	1.01	1.31	2.15	0.24	0.70	0.96	1.24	1.87
REDUCT. OF HIP FRACTURE	259	0.00	0.61	0.91	1.26	2.16	0.38	0.74	0.96	1.21	1.94	0.44	0.77	0.96	1.16	1.79
PROSTATECTOMY	1619	0.00	0.00	0.78	1.53	3.69	0.00	0.54	0.92	1.39	2.57	0.00	0.61	0.93	1.30	2.21
CHOLECYSTECTOMY	642	0.00	0.50	0.96	1.44	3.04	0.00	0.61	0.96	1.36	2.26	0.25	0.66	0.96	1.27	2.01
HYSTERECTOMY	90	0.00	0.00	0.00	1.57	5.00	0.00	0.00	0.68	1.43	2.83	0.00	0.28	0.67	1.15	2.88

TABLE 5: MULTIPLICATIVE FACTORS FOR THE CALCULATION OF THE BOUNDS FOR PREDICTION INTERVALS

(n is the number of cases at your hospital and p is the predicted mortality rate)

	99% Prediction Interval					95% Prediction Interval					75% Prediction Interval				
	Factor for Upper Bound					Factor for Upper Bound					Factor for Upper Bound				
p	1%	5%	10%	20%	40%	1%	5%	10%	20%	40%	1%	5%	10%	20%	40%
n															
25	2.95	2.73	2.68	2.63	2.59	2.15	2.04	2.01	1.99	1.97	1.17	1.16	1.16	1.15	1.15
50	2.76	2.65	2.63	2.60	2.58	2.05	2.00	1.99	1.97	1.96	1.16	1.15	1.15	1.15	1.15
75	2.70	2.63	2.61	2.59	2.58	2.02	1.99	1.98	1.97	1.96	1.16	1.15	1.15	1.15	1.15
100	2.67	2.61	2.60	2.59	2.58	2.01	1.98	1.97	1.97	1.96	1.16	1.15	1.15	1.15	1.15
150	2.64	2.60	2.59	2.59	2.58	1.99	1.97	1.97	1.96	1.96	1.15	1.15	1.15	1.15	1.15
200	2.62	2.60	2.59	2.58	2.58	1.98	1.97	1.97	1.96	1.96	1.15	1.15	1.15	1.15	1.15
300	2.61	2.59	2.58	2.58	2.58	1.98	1.97	1.96	1.96	1.96	1.15	1.15	1.15	1.15	1.15
400	2.60	2.59	2.58	2.58	2.58	1.97	1.96	1.96	1.96	1.96	1.15	1.15	1.15	1.15	1.15
500	2.59	2.58	2.58	2.58	2.58	1.97	1.96	1.96	1.96	1.96	1.15	1.15	1.15	1.15	1.15
750	2.59	2.58	2.58	2.58	2.58	1.97	1.96	1.96	1.96	1.96	1.15	1.15	1.15	1.15	1.15
1000	2.59	2.58	2.58	2.58	2.58	1.96	1.96	1.96	1.96	1.96	1.15	1.15	1.15	1.15	1.15
2000	2.58	2.58	2.58	2.58	2.58	1.96	1.96	1.96	1.96	1.96	1.15	1.15	1.15	1.15	1.15
5000	2.58	2.58	2.58	2.58	2.58	1.96	1.96	1.96	1.96	1.96	1.15	1.15	1.15	1.15	1.15
	Factor for Lower Bound					Factor for Lower Bound					Factor for Lower Bound				
p	1%	5%	10%	20%	40%	1%	5%	10%	20%	40%	1%	5%	10%	20%	40%
n															
25	-2.21	-2.42	-2.48	-2.52	-2.56	-1.77	-1.88	-1.91	-1.93	-1.95	-1.13	-1.14	-1.14	-1.15	-1.15
50	-2.39	-2.50	-2.53	-2.55	-2.57	-1.87	-1.92	-1.93	-1.95	-1.96	-1.14	-1.15	-1.15	-1.15	-1.15
75	-2.45	-2.52	-2.54	-2.56	-2.57	-1.90	-1.93	-1.94	-1.95	-1.96	-1.14	-1.15	-1.15	-1.15	-1.15
100	-2.48	-2.54	-2.55	-2.56	-2.57	-1.91	-1.94	-1.95	-1.95	-1.96	-1.15	-1.15	-1.15	-1.15	-1.15
150	-2.51	-2.55	-2.56	-2.57	-2.57	-1.93	-1.95	-1.95	-1.96	-1.96	-1.15	-1.15	-1.15	-1.15	-1.15
200	-2.53	-2.56	-2.56	-2.57	-2.57	-1.94	-1.95	-1.95	-1.96	-1.96	-1.15	-1.15	-1.15	-1.15	-1.15
300	-2.54	-2.56	-2.57	-2.57	-2.57	-1.94	-1.95	-1.96	-1.96	-1.96	-1.15	-1.15	-1.15	-1.15	-1.15
400	-2.55	-2.57	-2.57	-2.57	-2.57	-1.95	-1.96	-1.96	-1.96	-1.96	-1.15	-1.15	-1.15	-1.15	-1.15
500	-2.56	-2.57	-2.57	-2.57	-2.58	-1.95	-1.96	-1.96	-1.96	-1.96	-1.15	-1.15	-1.15	-1.15	-1.15
750	-2.56	-2.57	-2.57	-2.57	-2.58	-1.95	-1.96	-1.96	-1.96	-1.96	-1.15	-1.15	-1.15	-1.15	-1.15
1000	-2.57	-2.57	-2.57	-2.57	-2.58	-1.96	-1.96	-1.96	-1.96	-1.96	-1.15	-1.15	-1.15	-1.15	-1.15
2000	-2.57	-2.57	-2.57	-2.58	-2.58	-1.96	-1.96	-1.96	-1.96	-1.96	-1.15	-1.15	-1.15	-1.15	-1.15
5000	-2.57	-2.58	-2.58	-2.58	-2.58	-1.96	-1.96	-1.96	-1.96	-1.96	-1.15	-1.15	-1.15	-1.15	-1.15

Medicare Hospital Information

ALLEN MEMORIAL HOSPITAL

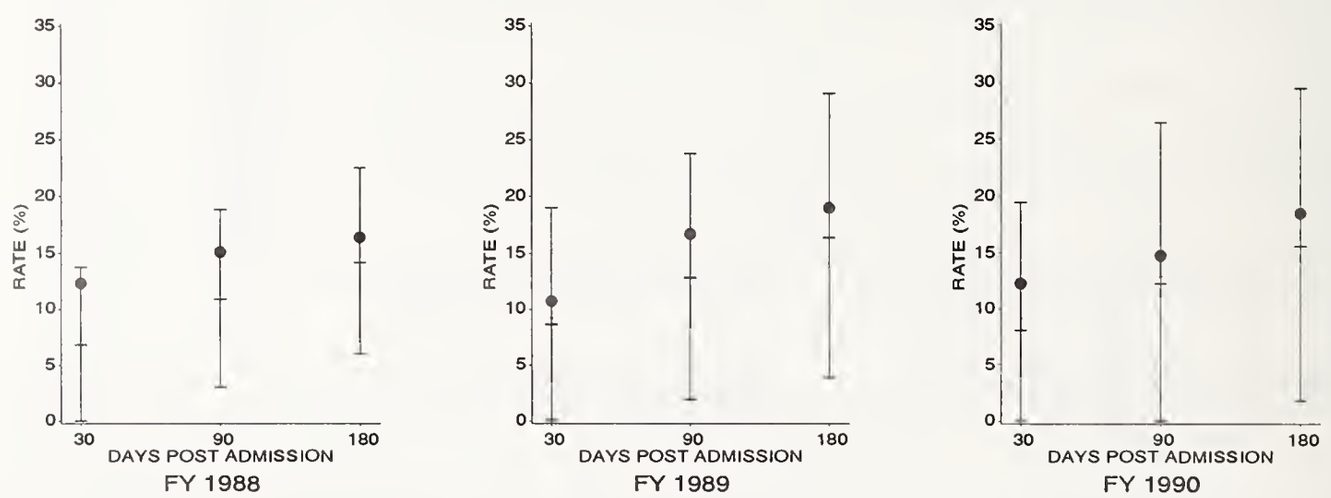
719 WEST 4TH NORTH
MOAB, UT 84532
Medicare Provider Number: 460016

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	81	12.3	8.1	5.7	14.8	12.3	7.1	18.5	15.6	6.9
CONDITIONS:										
Acute Myocardial Infarction	4	75.0	18.2	-----	75.0	21.4	-----	75.0	25.0	-----
Congestive Heart Failure	5	20.0	14.9	-----	20.0	24.4	-----	20.0	29.8	-----
Pneumonia/Influenza	11	0.0	11.0	-----	9.1	15.3	-----	18.2	18.6	-----
Chronic Obstructive Pulmonary Disease	2	0.0	11.1	-----	0.0	16.8	-----	0.0	22.3	-----
Transient Cerebral Ischemia	0									
Stroke	3	0.0	13.1	-----	0.0	16.5	-----	0.0	19.0	-----
Hip Fracture	0									
Sepsis	0									
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	1	0.0	0.9	-----	0.0	1.7	-----	0.0	2.1	-----
Hysterectomy	2	0.0	0.3	-----	0.0	0.8	-----	0.0	1.2	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



ALLEN MEMORIAL HOSPITAL
Medicare Provider Number: 460016

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	75.0 years
Proportion female	53.1 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	98.8 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	0.0 %
Admitted for emergency	98.8 %

COMORBIDITIES:

Cancer	7.4 %
Chronic cardiovascular disease	27.2 %
Chronic liver disease	1.2 %
Chronic renal disease	1.2 %
Chronic pulmonary disease	13.6 %
Cerebrovascular degeneration	3.7 %
Diabetes mellitus	6.2 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	84.2%
State	5.3%
Outside State	10.5%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.4 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	34
Occupancy Rate	68.0 %
Ownership/Control	District/Authority
Medicare Discharges	(Not Available)
Case Mix Index (CMI)	0.9088

STAFFING:

Total Number of Physicians	3
Percent of Physicians Board Certified Specialists	(Not Available)
Medical Residents/Interns	0
Registered Nurses	10
Licensed Practical Nurses	6

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

*** Not used in calculating mortality rates**

ALTA VIEW HOSPITAL

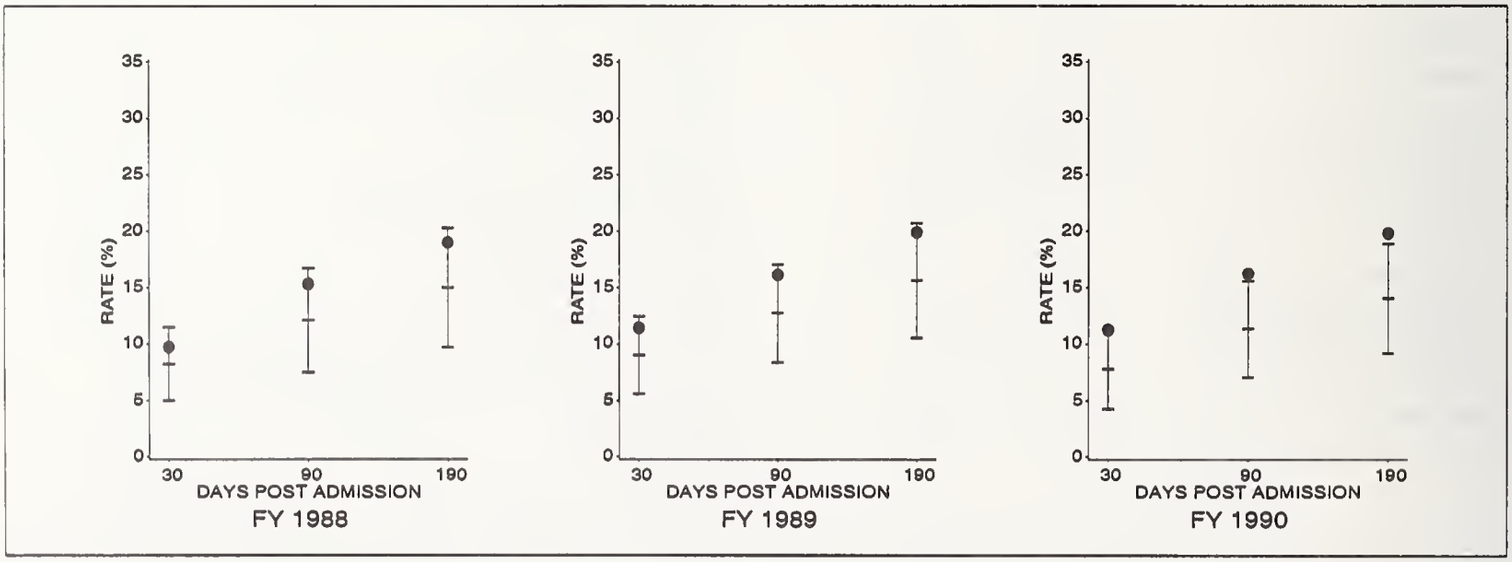
9660 SOUTH 1300 EAST
SANDY, UT 84070
Medicare Provider Number: 460044

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	439	11.2	7.8	1.8	16.2	11.3	2.1	19.8	14.0	2.4
CONDITIONS:										
Acute Myocardial Infarction	19	47.4	24.0	-----	47.4	26.5	-----	47.4	28.7	-----
Congestive Heart Failure	28	10.7	14.8	-----	28.6	23.6	-----	28.6	30.1	-----
Pneumonia/Influenza	29	27.6	14.0	-----	27.6	18.9	-----	44.8	22.3	-----
Chronic Obstructive Pulmonary Disease	9	0.0	6.7	-----	0.0	11.8	-----	0.0	15.7	-----
Transient Cerebral Ischemia	1	0.0	1.3	-----	0.0	3.2	-----	0.0	5.5	-----
Stroke	16	18.8	16.8	-----	25.0	22.9	-----	31.3	26.6	-----
Hip Fracture	29	3.4	6.2	-----	20.7	10.4	-----	27.6	13.3	-----
Sepsis	1	0.0	20.7	-----	100.0	26.3	-----	100.0	32.6	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	10	0.0	4.9	-----	20.0	8.7	-----	30.0	11.3	-----
Open Reduction of Hip Fracture	17	5.9	5.7	-----	17.6	9.8	-----	23.5	12.6	-----
Prostatectomy	13	7.7	0.7	-----	7.7	1.7	-----	7.7	3.1	-----
Cholecystectomy	24	4.2	1.6	-----	4.2	2.6	-----	4.2	3.4	-----
Hysterectomy	7	0.0	0.1	-----	0.0	0.3	-----	0.0	0.5	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



ALTA VIEW HOSPITAL
Medicare Provider Number: 460044

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	75.2 years
Proportion female	57.4 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	43.5 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	28.5 %
Admitted for emergency	0.0 %

COMORBIDITIES:

Cancer	2.3 %
Chronic cardiovascular disease	35.1 %
Chronic liver disease	0.5 %
Chronic renal disease	2.1 %
Chronic pulmonary disease	10.9 %
Cerebrovascular degeneration	3.6 %
Diabetes mellitus	6.6 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	86.5%
State	6.5%
Outside State	7.0%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	4.8 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	70
Occupancy Rate	47.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	(Not Available)
Case Mix Index (CMI)	1.2005

STAFFING:

Total Number of Physicians	115
Percent of Physicians Board Certified Specialists	65.2 %
Medical Residents/Interns	0
Registered Nurses	90
Licensed Practical Nurses	14

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	No

** Except for CMI

*** Not used in calculating mortality rates**

AMERICAN FORK HOSPITAL

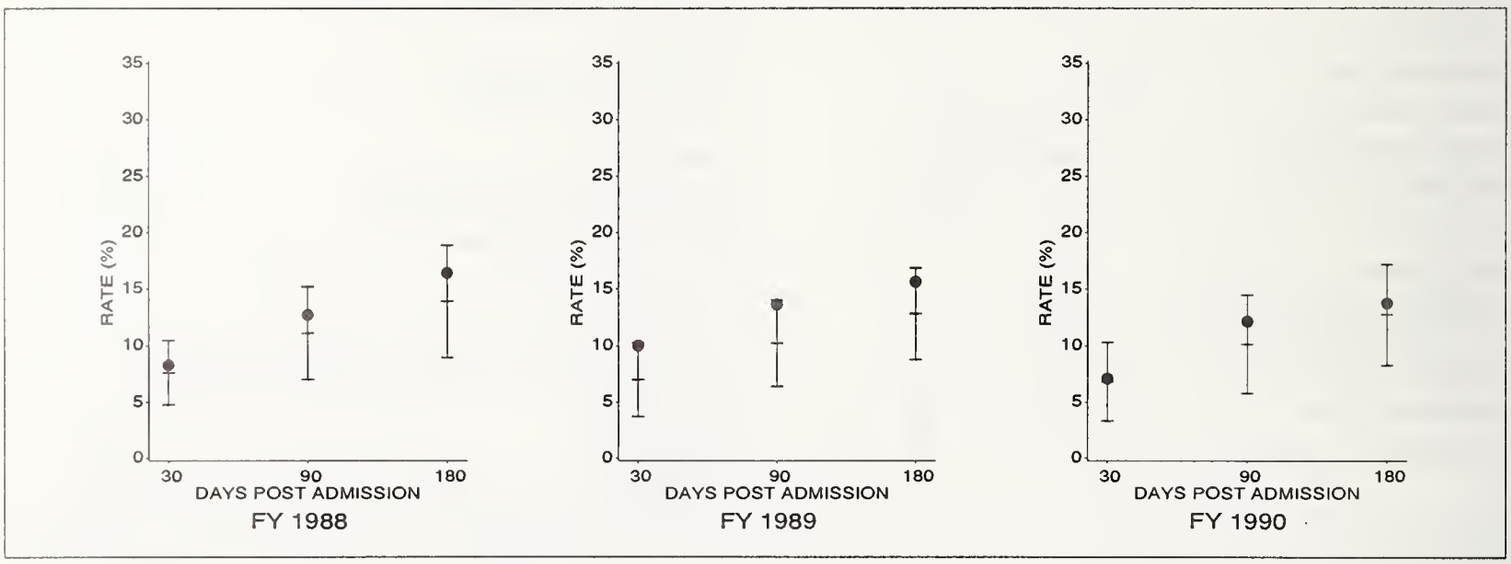
170 NORTH 1100 EAST
AMERICAN FORK, UT 84003
Medicare Provider Number: 460023

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%) 30 DAYS OBS	30 DAYS PRED	30 DAYS SD*	90 DAYS OBS	90 DAYS PRED	90 DAYS SD*	180 DAYS OBS	180 DAYS PRED	180 DAYS SD*
ALL CAUSES	634	7.1	6.8	1.7	12.1	10.1	2.2	13.7	12.7	2.2
CONDITIONS:										
Acute Myocardial Infarction	20	25.0	23.0	-----	35.0	26.7	-----	35.0	29.6	-----
Congestive Heart Failure	28	14.3	12.2	-----	21.4	19.4	-----	28.6	25.0	-----
Pneumonia/Influenza	52	11.5	11.2	4.7	17.3	15.2	5.7	23.1	18.1	6.9
Chronic Obstructive Pulmonary Disease	12	0.0	7.3	-----	8.3	13.2	-----	8.3	17.6	-----
Transient Cerebral Ischemia	8	0.0	1.4	-----	12.5	3.3	-----	25.0	5.6	-----
Stroke	20	15.0	17.5	-----	20.0	22.6	-----	20.0	26.2	-----
Hip Fracture	19	15.8	4.5	-----	21.1	8.1	-----	21.1	10.7	-----
Sepsis	8	0.0	24.0	-----	0.0	31.7	-----	0.0	36.4	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	1	0.0	2.0	-----	0.0	4.3	-----	0.0	6.3	-----
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	23	0.0	2.0	-----	4.3	3.8	-----	4.3	5.2	-----
Open Reduction of Hip Fracture	7	0.0	3.0	-----	0.0	5.6	-----	0.0	7.2	-----
Prostatectomy	43	0.0	0.5	-----	0.0	1.1	-----	0.0	1.9	-----
Cholecystectomy	19	0.0	1.2	-----	0.0	1.9	-----	0.0	2.4	-----
Hysterectomy	8	0.0	0.1	-----	0.0	0.2	-----	0.0	0.5	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



AMERICAN FORK HOSPITAL
Medicare Provider Number: 460023

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	74.1 years
Proportion female	57.9 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	44.3 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	52.4 %
Admitted for emergency	8.7 %

COMORBIDITIES:

Cancer	4.6 %
Chronic cardiovascular disease	25.6 %
Chronic liver disease	0.5 %
Chronic renal disease	1.4 %
Chronic pulmonary disease	9.0 %
Cerebrovascular degeneration	2.8 %
Diabetes mellitus	8.8 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	92.8%
State	5.3%
Outside State	1.9%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.8 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	65
Occupancy Rate	55.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	25.3 %
Case Mix Index (CMI)	1.0932

STAFFING:

Total Number of Physicians	40
Percent of Physicians Board Certified Specialists	80.0 %
Medical Residents/Interns	0
Registered Nurses	56
Licensed Practical Nurses	16

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	Yes

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

* Not used in calculating mortality rates

ASHLEY VALLEY MEDICAL CENTER

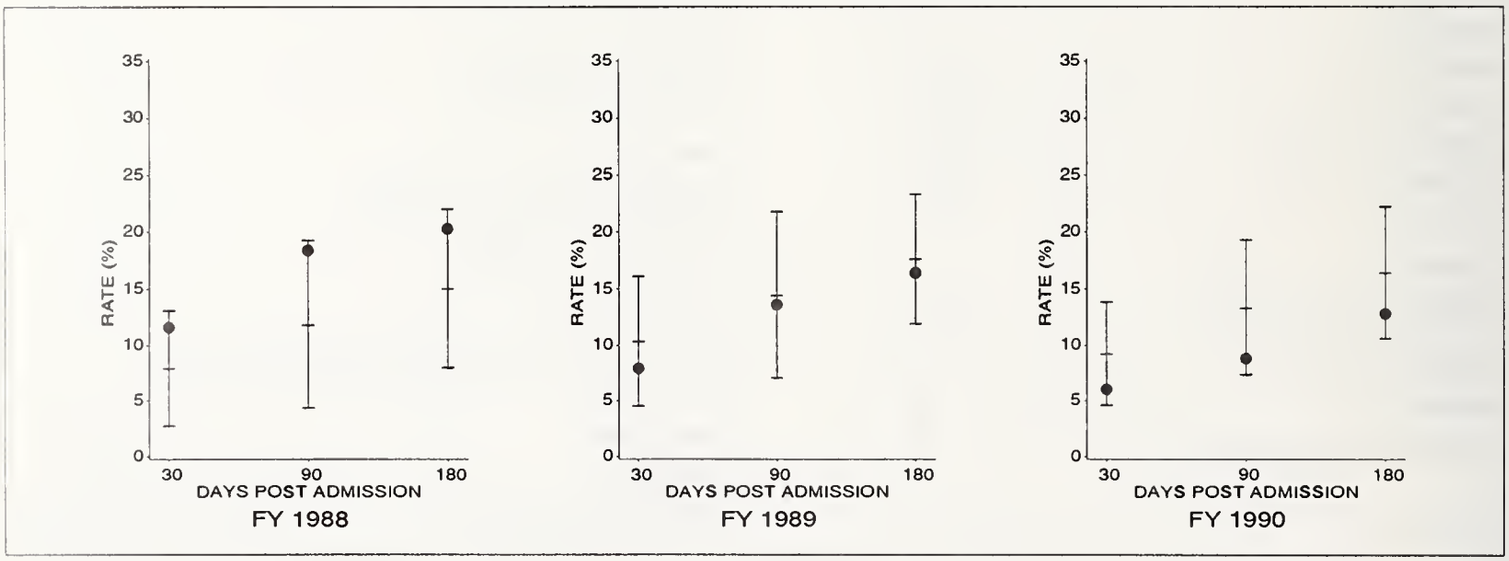
151 WEST 200 NORTH
VERNAL, UT 84078
Medicare Provider Number: 460030

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	250	6.0	9.2	2.3	8.8	13.3	3.0	12.8	16.4	2.9
CONDITIONS:										
Acute Myocardial Infarction	7	28.6	22.8	-----	28.6	25.6	-----	28.6	28.5	-----
Congestive Heart Failure	18	11.1	13.3	-----	22.2	21.6	-----	38.9	28.1	-----
Pneumonia/Influenza	16	12.5	17.1	-----	18.8	24.4	-----	18.8	28.5	-----
Chronic Obstructive Pulmonary Disease	9	0.0	6.0	-----	0.0	10.4	-----	22.2	14.2	-----
Transient Cerebral Ischemia	7	14.3	1.7	-----	14.3	3.6	-----	14.3	5.9	-----
Stroke	10	30.0	24.2	-----	30.0	29.1	-----	30.0	32.2	-----
Hip Fracture	5	0.0	5.3	-----	0.0	10.0	-----	20.0	14.0	-----
Sepsis	2	0.0	29.0	-----	0.0	35.9	-----	0.0	40.0	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	4	0.0	1.9	-----	0.0	3.6	-----	25.0	5.5	-----
Open Reduction of Hip Fracture	0									
Prostatectomy	7	0.0	0.7	-----	0.0	1.7	-----	0.0	3.1	-----
Cholecystectomy	3	0.0	1.6	-----	0.0	2.8	-----	0.0	3.5	-----
Hysterectomy	0									

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



ASHLEY VALLEY MEDICAL CENTER

Medicare Provider Number: 460030

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	75.6 years
Proportion female	54.8 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	43.6 %
Transferred from skilled nursing facility	0.4 %
Admitted for elective procedure	42.0 %
Admitted for emergency	54.4 %

COMORBIDITIES:

Cancer	4.8 %
Chronic cardiovascular disease	42.8 %
Chronic liver disease	0.8 %
Chronic renal disease	0.8 %
Chronic pulmonary disease	13.2 %
Cerebrovascular degeneration	2.8 %
Diabetes mellitus	13.2 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	82.4%
State	13.2%
Outside State	4.4%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	4.4 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	33
Occupancy Rate	33.0 %
Ownership/Control	Private, For Profit
Medicare Discharges	29.6 %
Case Mix Index (CMI)	1.0509

STAFFING:

Total Number of Physicians	12
Percent of Physicians Board Certified Specialists	75.0 %
Medical Residents/Interns	0
Registered Nurses	30
Licensed Practical Nurses	12

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	Yes
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

*** Not used in calculating mortality rates**

BEAR RIVER VALLEY HOSPITAL

440 WEST 600 NORTH
TREMONTON, UT 84337
Medicare Provider Number: 460039

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	50	14.0	9.1	-----	20.0	13.5	-----	22.0	16.5	-----
CONDITIONS:										
Acute Myocardial Infarction	1	100.0	11.6	-----	100.0	17.5	-----	100.0	21.4	-----
Congestive Heart Failure	1	0.0	21.6	-----	100.0	32.7	-----	100.0	37.7	-----
Pneumonia/Influenza	12	16.7	14.6	-----	25.0	20.2	-----	25.0	23.7	-----
Chronic Obstructive Pulmonary Disease	1	0.0	2.1	-----	0.0	4.5	-----	0.0	6.4	-----
Transient Cerebral Ischemia	0									
Stroke	1	0.0	21.2	-----	0.0	30.8	-----	0.0	37.1	-----
Hip Fracture	0									
Sepsis	0									
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	0									
Hysterectomy	1	0.0	1.4	-----	0.0	3.4	-----	0.0	5.4	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES

No Graphs are presented when the standard deviation was not computed for one or more of the three fiscal years, (1988, 1989, or 1990)

BEAR RIVER VALLEY HOSPITAL

Medicare Provider Number: 460039

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	78.8 years
Proportion female	56.0 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	54.0 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	6.0 %
Admitted for emergency	4.0 %

COMORBIDITIES:

Cancer	4.0 %
Chronic cardiovascular disease	32.0 %
Chronic liver disease	2.0 %
Chronic renal disease	0.0 %
Chronic pulmonary disease	14.0 %
Cerebrovascular degeneration	2.0 %
Diabetes mellitus	8.0 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	91.2%
State	2.9%
Outside State	5.9%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.5 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	20
Occupancy Rate	15.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	18.8 %
Case Mix Index (CMI)	0.9627

STAFFING:

Total Number of Physicians	14
Percent of Physicians Board Certified Specialists	100.0 %
Medical Residents/Interns	0
Registered Nurses	7
Licensed Practical Nurses	0

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

*** Not used in calculating mortality rates**

BEAVER VALLEY HOSPITAL

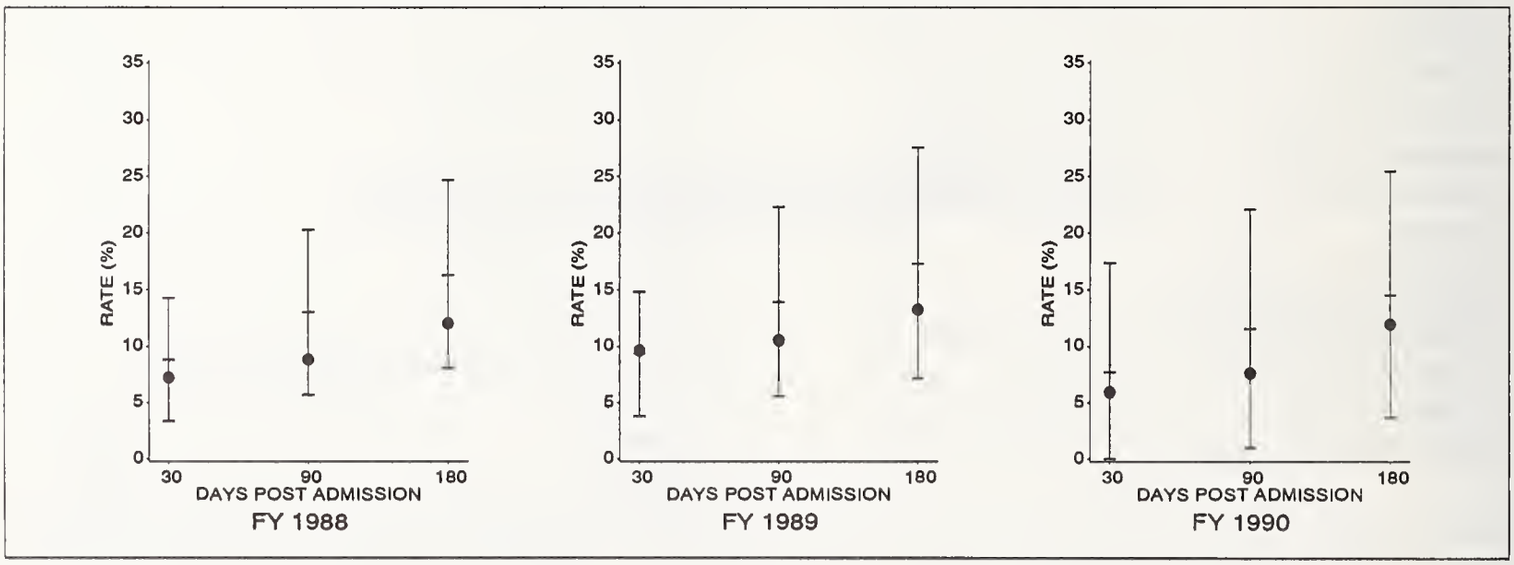
85 NORTH 400 EAST
BEAVER, UT 84713
Medicare Provider Number: 460035

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	118	5.9	7.7	4.8	7.6	11.5	5.3	11.9	14.5	5.5
CONDITIONS:										
Acute Myocardial Infarction	6	0.0	22.8	-----	0.0	25.5	-----	16.7	27.6	-----
Congestive Heart Failure	11	9.1	11.6	-----	9.1	19.2	-----	9.1	25.7	-----
Pneumonia/Influenza	13	0.0	11.9	-----	7.7	16.6	-----	15.4	19.6	-----
Chronic Obstructive Pulmonary Disease	1	0.0	2.8	-----	0.0	5.3	-----	0.0	8.3	-----
Transient Cerebral Ischemia	2	0.0	0.9	-----	0.0	2.1	-----	0.0	3.7	-----
Stroke	4	50.0	14.5	-----	50.0	19.9	-----	50.0	24.7	-----
Hip Fracture	0									
Sepsis	2	0.0	21.3	-----	0.0	29.4	-----	0.0	32.8	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	3	0.0	0.7	-----	0.0	1.3	-----	0.0	1.8	-----
Hysterectomy	0									

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



BEAVER VALLEY HOSPITAL
Medicare Provider Number: 460035

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	75.8 years
Proportion female	63.6 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	97.5 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	0.8 %
Admitted for emergency	2.5 %

COMORBIDITIES:

Cancer	1.7 %
Chronic cardiovascular disease	40.7 %
Chronic liver disease	0.0 %
Chronic renal disease	2.5 %
Chronic pulmonary disease	11.0 %
Cerebrovascular degeneration	5.1 %
Diabetes mellitus	6.8 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	66.2%
State	25.5%
Outside State	8.3%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.6 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	36
Occupancy Rate	77.0 %
Ownership/Control	Local Government
Medicare Discharges	(Not Available)
Case Mix Index (CMI)	0.8976

STAFFING:

Total Number of Physicians	4
Percent of Physicians Board Certified Specialists	(Not Available)
Medical Residents/Interns	0
Registered Nurses	5
Licensed Practical Nurses	0

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

*** Not used in calculating mortality rates**

BRIGHAM CITY COMMUNITY HOSPITAL

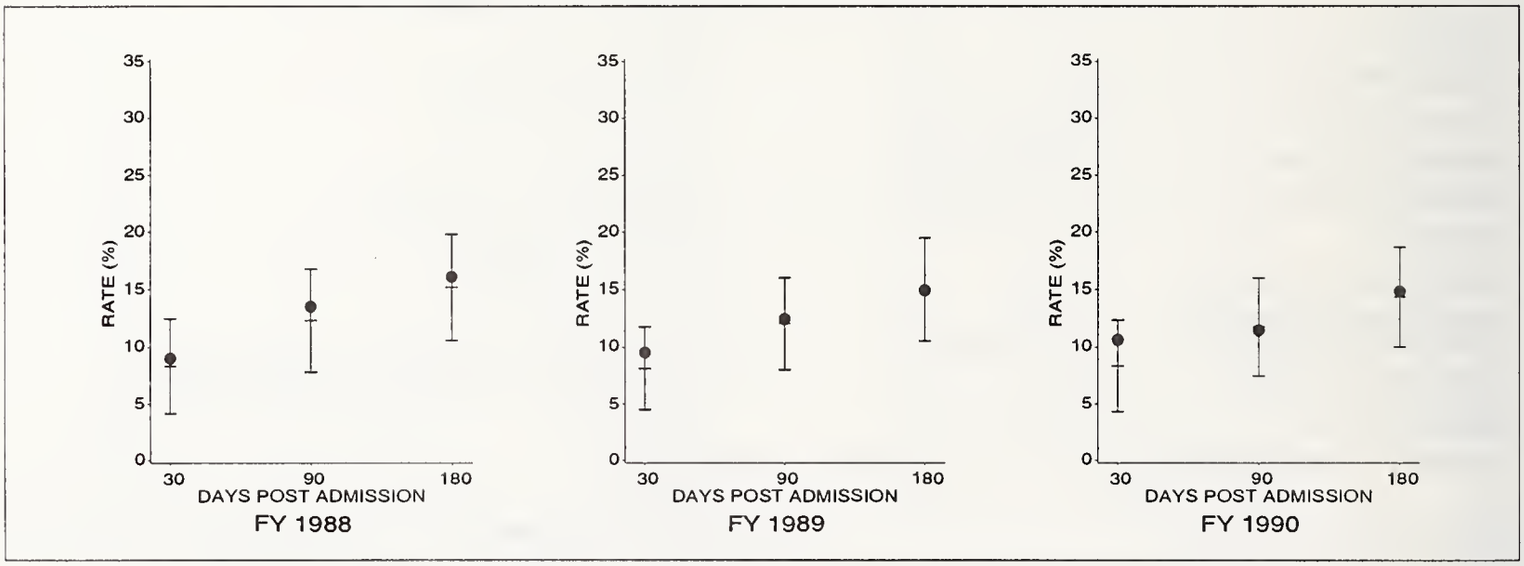
950 S 5TH W
BRIGHAM CITY, UT 84302
Medicare Provider Number: 460017

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	264	10.6	8.3	2.0	11.4	11.7	2.1	14.8	14.3	2.2
CONDITIONS:										
Acute Myocardial Infarction	11	18.2	21.0	-----	18.2	23.3	-----	18.2	25.3	-----
Congestive Heart Failure	12	25.0	14.2	-----	41.7	21.6	-----	41.7	26.9	-----
Pneumonia/Influenza	20	15.0	14.9	-----	15.0	20.1	-----	20.0	23.4	-----
Chronic Obstructive Pulmonary Disease	4	0.0	9.3	-----	0.0	15.7	-----	25.0	20.0	-----
Transient Cerebral Ischemia	1	0.0	0.9	-----	0.0	2.2	-----	0.0	3.8	-----
Stroke	12	0.0	16.4	-----	0.0	20.6	-----	8.3	23.6	-----
Hip Fracture	11	27.3	6.4	-----	27.3	10.6	-----	27.3	14.1	-----
Sepsis	0									
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	11	9.1	5.2	-----	9.1	8.6	-----	9.1	11.6	-----
Open Reduction of Hip Fracture	2	100.0	7.1	-----	100.0	12.5	-----	100.0	16.2	-----
Prostatectomy	2	0.0	0.3	-----	0.0	0.6	-----	0.0	1.2	-----
Cholecystectomy	11	0.0	1.0	-----	0.0	1.9	-----	0.0	2.5	-----
Hysterectomy	5	0.0	0.1	-----	0.0	0.1	-----	0.0	0.2	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



BRIGHAM CITY COMMUNITY HOSPITAL
Medicare Provider Number: 460017

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	73.8 years
Proportion female	58.3 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	61.4 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	16.3 %
Admitted for emergency	13.3 %

COMORBIDITIES:

Cancer	4.2 %
Chronic cardiovascular disease	38.3 %
Chronic liver disease	1.1 %
Chronic renal disease	1.1 %
Chronic pulmonary disease	9.8 %
Cerebrovascular degeneration	5.3 %
Diabetes mellitus	7.2 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	92.1%
State	5.4%
Outside State	2.5%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	4.3 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	44
Occupancy Rate	30.0 %
Ownership/Control	Private, For Profit
Medicare Discharges	22.7 %
Case Mix Index (CMI)	1.2061

STAFFING:

Total Number of Physicians	16
Percent of Physicians Board Certified Specialists	68.8 %
Medical Residents/Interns	0
Registered Nurses	32
Licensed Practical Nurses	9

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	Yes
Medicare Swing Beds	No

** Except for CMI

* Not used in calculating mortality rates

CASTLEVIEW HOSPITAL

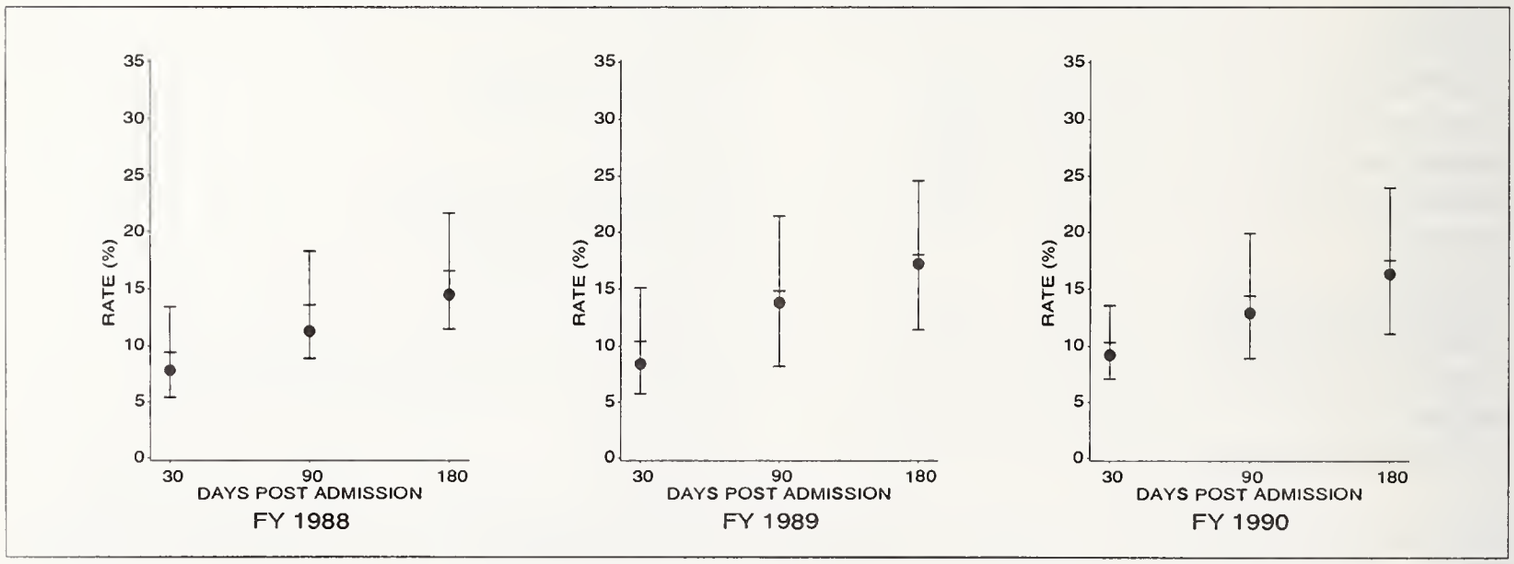
300 NORTH HOSPITAL DR
PRICE, UT 84501
Medicare Provider Number: 460011

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	490	9.2	10.3	1.6	12.9	14.4	2.8	16.3	17.5	3.2
CONDITIONS:										
Acute Myocardial Infarction	20	25.0	28.2	-----	25.0	31.4	-----	25.0	34.1	-----
Congestive Heart Failure	6	16.7	15.5	-----	33.3	25.4	-----	50.0	32.6	-----
Pneumonia/Influenza	63	6.3	12.7	5.1	14.3	17.4	5.4	19.0	20.5	5.4
Chronic Obstructive Pulmonary Disease	2	0.0	8.5	-----	0.0	13.7	-----	0.0	17.2	-----
Transient Cerebral Ischemia	2	0.0	1.0	-----	0.0	2.2	-----	0.0	3.7	-----
Stroke	21	14.3	19.2	-----	19.0	23.9	-----	28.6	27.5	-----
Hip Fracture	13	7.7	4.8	-----	15.4	8.5	-----	15.4	11.4	-----
Sepsis	18	27.8	17.5	-----	27.8	23.7	-----	27.8	28.0	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	11	0.0	4.4	-----	0.0	7.6	-----	0.0	10.3	-----
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	6	0.0	1.8	-----	0.0	3.5	-----	0.0	5.2	-----
Open Reduction of Hip Fracture	8	12.5	5.3	-----	25.0	9.6	-----	25.0	13.0	-----
Prostatectomy	32	0.0	0.6	-----	0.0	1.3	-----	3.1	2.3	-----
Cholecystectomy	24	4.2	2.0	-----	12.5	3.5	-----	12.5	4.7	-----
Hysterectomy	6	0.0	0.2	-----	0.0	0.5	-----	0.0	0.9	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



CASTLEVIEW HOSPITAL
Medicare Provider Number: 460011

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	74.6 years
Proportion female	52.0 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	29.0 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	20.2 %
Admitted for emergency	19.8 %

COMORBIDITIES:

Cancer	4.9 %
Chronic cardiovascular disease	41.0 %
Chronic liver disease	0.2 %
Chronic renal disease	3.3 %
Chronic pulmonary disease	32.9 %
Cerebrovascular degeneration	2.4 %
Diabetes mellitus	7.1 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	78.7%
State	18.6%
Outside State	2.7%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	5.3 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	88
Occupancy Rate	33.0 %
Ownership/Control	Private, For Profit
Medicare Discharges	23.5 %
Case Mix Index (CMI)	1.2516

STAFFING:

Total Number of Physicians	21
Percent of Physicians Board Certified Specialists	61.9 %
Medical Residents/Interns	0
Registered Nurses	47
Licensed Practical Nurses	28

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	Yes
Medicare Swing Beds	No

** Except for CMI

*** Not used in calculating mortality rates**

CENTRAL VALLEY MEDICAL CENTER

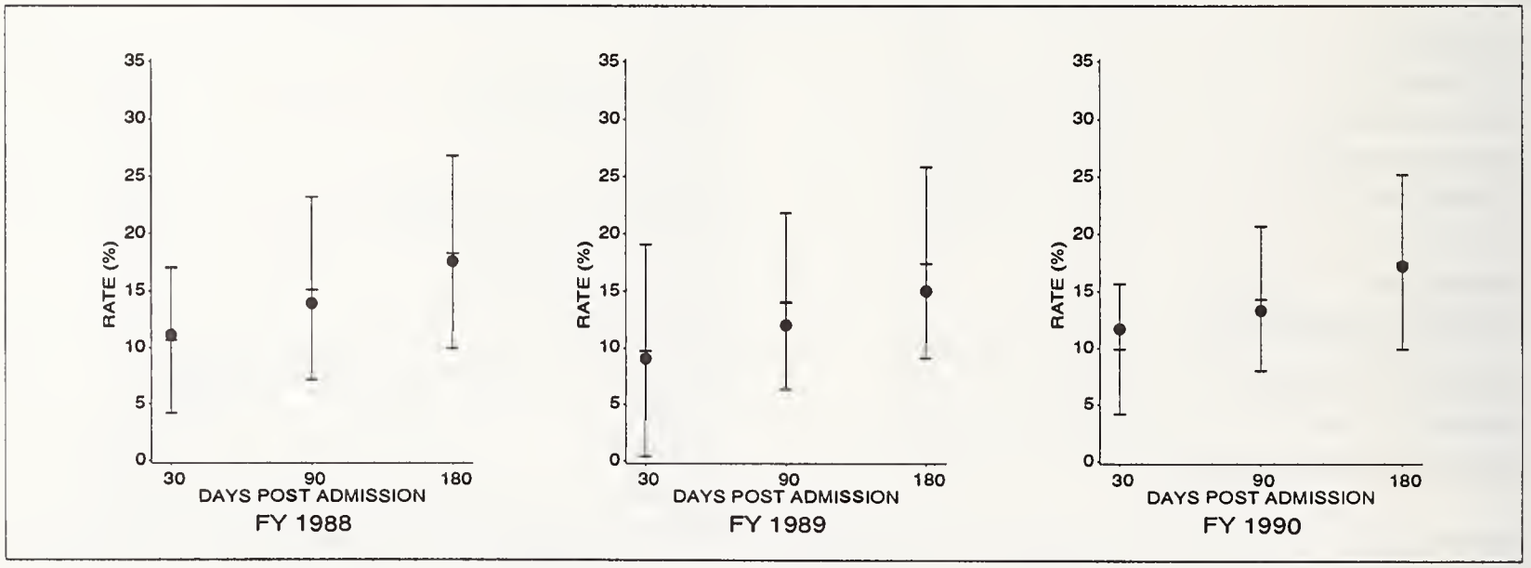
549 NORTH 400 EAST
NEPHI, UT 84648
Medicare Provider Number: 460032

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%) 30 DAYS OBS	30 DAYS PRED	30 DAYS SD*	90 DAYS OBS	90 DAYS PRED	90 DAYS SD*	180 DAYS OBS	180 DAYS PRED	180 DAYS SD*
ALL CAUSES	128	11.7	9.9	2.9	13.3	14.3	3.2	17.2	17.5	3.8
CONDITIONS:										
Acute Myocardial Infarction	2	0.0	22.3	-----	0.0	24.0	-----	0.0	25.7	-----
Congestive Heart Failure	7	28.6	15.2	-----	28.6	26.5	-----	28.6	33.7	-----
Pneumonia/Influenza	24	4.2	14.8	-----	8.3	20.4	-----	12.5	24.0	-----
Chronic Obstructive Pulmonary Disease	3	33.3	11.3	-----	33.3	18.3	-----	33.3	23.2	-----
Transient Cerebral Ischemia	3	0.0	0.9	-----	0.0	2.3	-----	0.0	3.8	-----
Stroke	5	0.0	23.3	-----	0.0	30.9	-----	0.0	35.9	-----
Hip Fracture	1	0.0	3.8	-----	0.0	7.3	-----	0.0	10.3	-----
Sepsis	6	50.0	26.6	-----	50.0	31.2	-----	50.0	35.5	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	1	0.0	1.4	-----	0.0	2.0	-----	0.0	2.6	-----
Hysterectomy	1	0.0	0.3	-----	0.0	0.6	-----	0.0	1.0	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



CENTRAL VALLEY MEDICAL CENTER

Medicare Provider Number: 460032

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	75.5 years
Proportion female	57.0 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	49.2 %
Transferred from skilled nursing facility	2.3 %
Admitted for elective procedure	0.0 %
Admitted for emergency	46.1 %

COMORBIDITIES:

Cancer	3.1 %
Chronic cardiovascular disease	29.7 %
Chronic liver disease	1.6 %
Chronic renal disease	4.7 %
Chronic pulmonary disease	10.9 %
Cerebrovascular degeneration	5.5 %
Diabetes mellitus	9.4 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	71.6%
State	25.0%
Outside State	3.4%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.1 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	22
Occupancy Rate	22.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	39.1 %
Case Mix Index (CMI)	0.9562

STAFFING:

Total Number of Physicians	4
Percent of Physicians Board Certified Specialists	100.0 %
Medical Residents/Interns	0
Registered Nurses	7
Licensed Practical Nurses	7

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

** Except for CMI

* Not used in calculating mortality rates

COTTONWOOD HOSPITAL

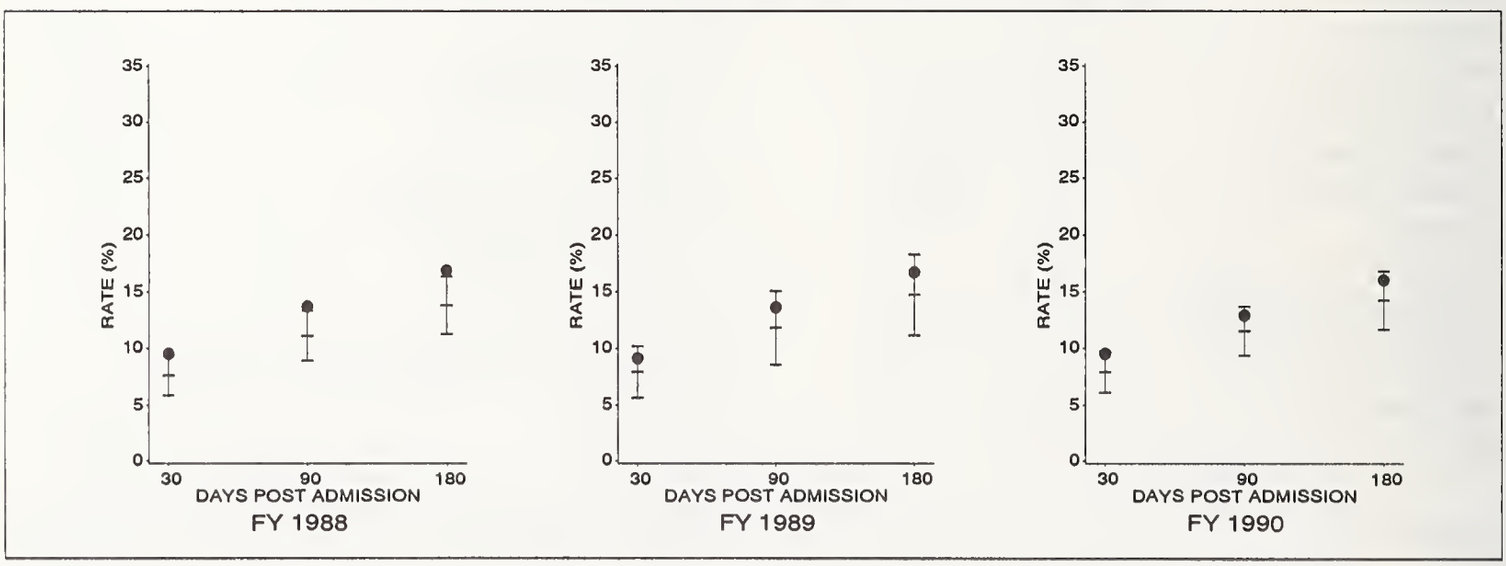
5770 S 300 E
MURRAY, UT 84107
Medicare Provider Number: 460006

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%) 30 DAYS OBS	30 DAYS PRED	30 DAYS SD*	90 DAYS OBS	90 DAYS PRED	90 DAYS SD*	180 DAYS OBS	180 DAYS PRED	180 DAYS SD*
ALL CAUSES	1385	9.5	7.9	0.9	12.9	11.5	1.1	16.0	14.2	1.3
CONDITIONS:										
Acute Myocardial Infarction	44	18.2	24.1	-----	18.2	26.7	-----	25.0	29.3	-----
Congestive Heart Failure	48	10.4	12.7	-----	25.0	19.8	-----	33.3	25.3	-----
Pneumonia/Influenza	47	14.9	16.3	-----	19.1	22.4	-----	23.4	26.3	-----
Chronic Obstructive Pulmonary Disease	12	8.3	8.3	-----	8.3	13.1	-----	16.7	16.5	-----
Transient Cerebral Ischemia	10	10.0	1.6	-----	10.0	3.5	-----	10.0	5.6	-----
Stroke	73	26.0	21.5	6.6	30.1	27.4	6.5	34.2	30.9	6.7
Hip Fracture	46	6.5	6.5	-----	10.9	10.8	-----	13.0	13.7	-----
Sepsis	13	23.1	21.2	-----	23.1	25.8	-----	30.8	29.2	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	1	0.0	16.5	-----	0.0	25.1	-----	100.0	30.4	-----
Initial Pacemaker Insertion	7	0.0	6.6	-----	0.0	10.4	-----	0.0	13.4	-----
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	36	0.0	3.4	-----	8.3	6.1	-----	11.1	8.0	-----
Open Reduction of Hip Fracture	21	4.8	6.2	-----	4.8	10.4	-----	4.8	13.3	-----
Prostatectomy	125	0.0	0.7	0.9	0.0	1.7	1.5	0.8	3.0	1.9
Cholecystectomy	70	1.4	2.2	1.9	1.4	4.2	3.2	1.4	5.6	4.2
Hysterectomy	24	0.0	0.1	-----	0.0	0.3	-----	0.0	0.5	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



COTTONWOOD HOSPITAL
Medicare Provider Number: 460006

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	74.6 years
Proportion female	52.9 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	55.5 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	41.1 %
Admitted for emergency	46.3 %

COMORBIDITIES:

Cancer	6.6 %
Chronic cardiovascular disease	40.8 %
Chronic liver disease	0.6 %
Chronic renal disease	1.7 %
Chronic pulmonary disease	9.6 %
Cerebrovascular degeneration	2.3 %
Diabetes mellitus	6.7 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	88.7%
State	7.2%
Outside State	4.1%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	5.7 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	163
Occupancy Rate	51.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	18.9 %
Case Mix Index (CMI)	1.3371

STAFFING:

Total Number of Physicians	259
Percent of Physicians Board Certified Specialists	82.2 %
Medical Residents/Interns	0
Registered Nurses	135
Licensed Practical Nurses	37

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	No

** Except for CMI

*** Not used in calculating mortality rates**

DELTA COMMUNITY MEDICAL CENTER

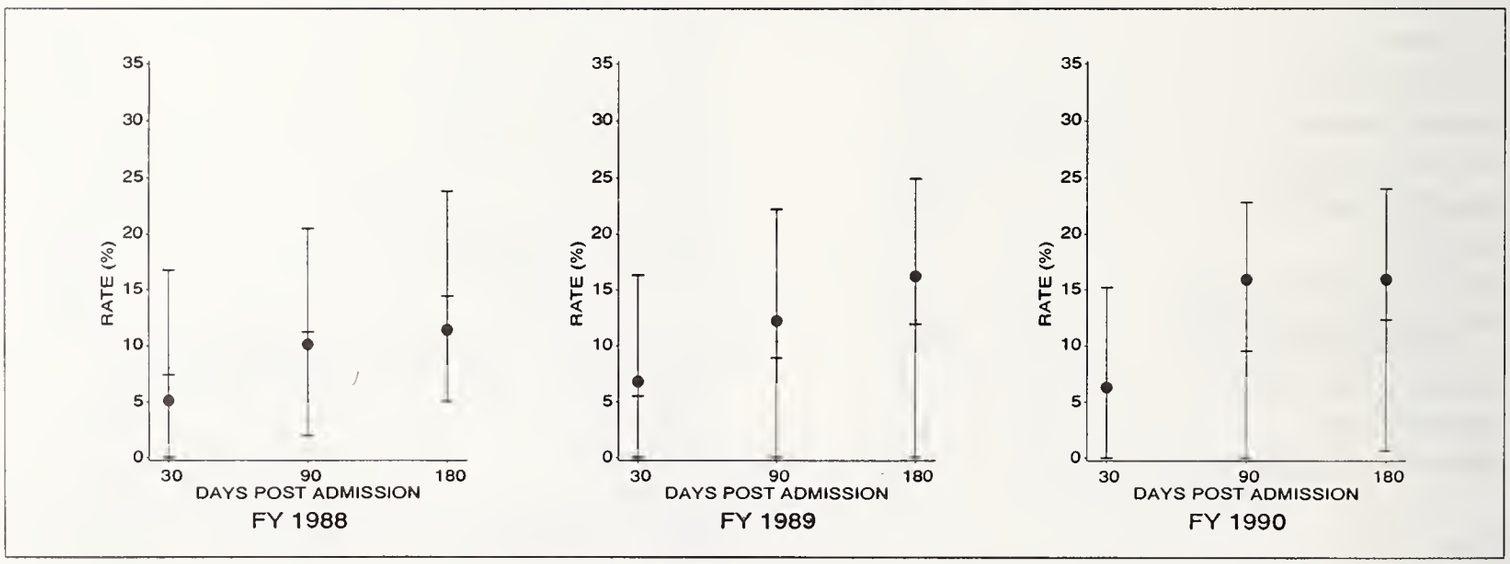
126 SOUTH WHITE SAGE AVE
DELTA, UT 84624
Medicare Provider Number: 460027

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%) 30 DAYS OBS	30 DAYS PRED	30 DAYS SD*	90 DAYS OBS	90 DAYS PRED	90 DAYS SD*	180 DAYS OBS	180 DAYS PRED	180 DAYS SD*
ALL CAUSES	63	6.3	6.2	4.5	15.9	9.5	6.7	15.9	12.3	5.8
CONDITIONS:										
Acute Myocardial Infarction	1	100.0	12.7	-----	100.0	15.3	-----	100.0	18.5	-----
Congestive Heart Failure	2	0.0	9.9	-----	100.0	16.4	-----	100.0	24.4	-----
Pneumonia/Influenza	16	6.3	10.0	-----	12.5	13.9	-----	12.5	16.7	-----
Chronic Obstructive Pulmonary Disease	1	0.0	8.6	-----	0.0	12.7	-----	0.0	15.6	-----
Transient Cerebral Ischemia	0									
Stroke	2	50.0	14.4	-----	50.0	18.4	-----	50.0	22.5	-----
Hip Fracture	0									
Sepsis	0									
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	0									
Hysterectomy	0									

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



DELTA COMMUNITY MEDICAL CENTER

Medicare Provider Number: 460027

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	77.7 years
Proportion female	61.9 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	50.8 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	60.3 %
Admitted for emergency	1.6 %

COMORBIDITIES:

Cancer	1.6 %
Chronic cardiovascular disease	46.0 %
Chronic liver disease	0.0 %
Chronic renal disease	0.0 %
Chronic pulmonary disease	15.9 %
Cerebrovascular degeneration	4.8 %
Diabetes mellitus	11.1 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	96.0%
State	3.0%
Outside State	1.0%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.9 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	20
Occupancy Rate	25.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	32.3 %
Case Mix Index (CMI)	0.9252

STAFFING:

Total Number of Physicians	5
Percent of Physicians Board Certified Specialists	40.0 %
Medical Residents/Interns	0
Registered Nurses	13
Licensed Practical Nurses	3

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	Yes
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

** Except for CMI

* Not used in calculating mortality rates

DIXIE MEDICAL CENTER

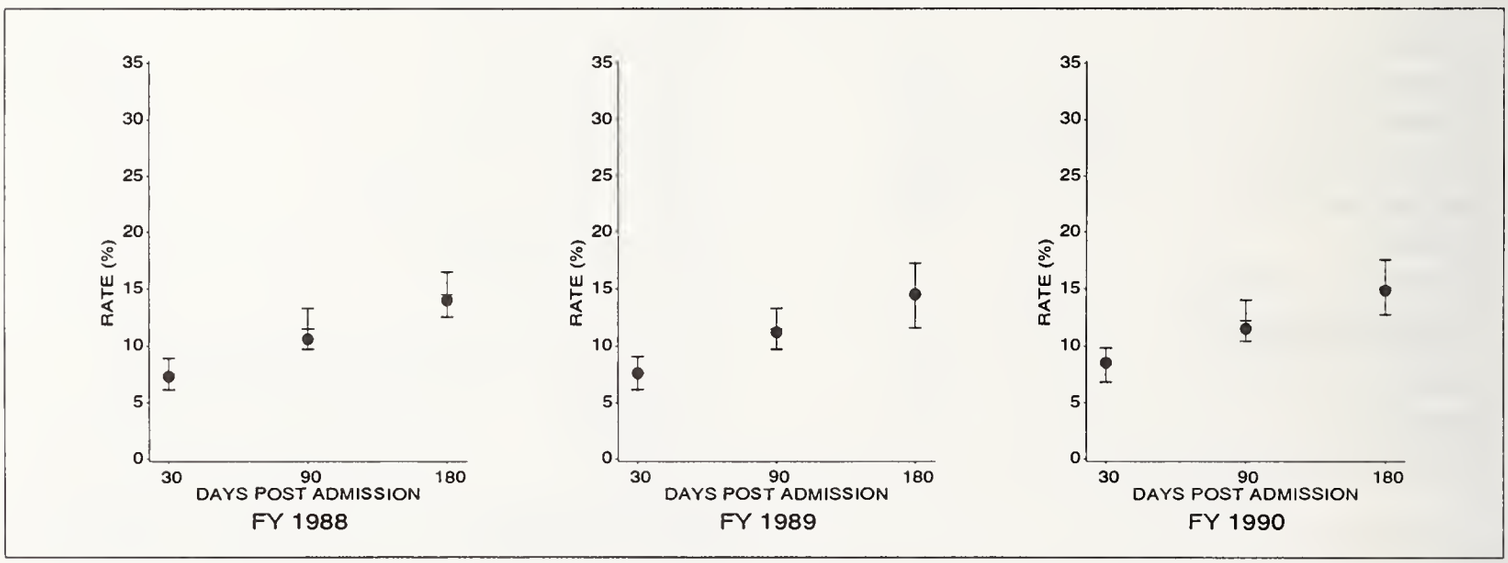
544 SOUTH 400 EAST
ST GEORGE, UT 84770
Medicare Provider Number: 460021

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	1524	8.5	8.3	0.8	11.5	12.2	0.9	14.8	15.1	1.2
CONDITIONS:										
Acute Myocardial Infarction	77	15.6	28.2	7.9	16.9	30.6	8.2	20.8	33.1	8.3
Congestive Heart Failure	51	21.6	13.9	10.9	27.5	21.8	12.3	35.3	27.9	11.4
Pneumonia/Influenza	98	13.3	16.6	4.3	17.3	22.6	5.4	22.4	26.5	6.2
Chronic Obstructive Pulmonary Disease	13	15.4	6.3	-----	15.4	11.3	-----	23.1	15.3	-----
Transient Cerebral Ischemia	6	0.0	4.8	-----	0.0	10.2	-----	0.0	14.9	-----
Stroke	32	34.4	22.5	-----	34.4	28.5	-----	40.6	31.7	-----
Hip Fracture	41	4.9	7.4	-----	12.2	12.3	-----	14.6	15.8	-----
Sepsis	13	23.1	17.1	-----	23.1	22.8	-----	23.1	26.7	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	15	0.0	3.9	-----	0.0	6.5	-----	6.7	9.0	-----
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	67	3.0	2.2	2.2	3.0	3.8	3.0	3.0	5.1	3.8
Open Reduction of Hip Fracture	28	3.6	6.1	-----	14.3	10.7	-----	17.9	14.2	-----
Prostatectomy	83	1.2	0.9	1.1	3.6	2.1	2.5	4.8	3.6	2.8
Cholecystectomy	69	4.3	2.8	2.9	5.8	5.1	3.2	5.8	6.7	3.6
Hysterectomy	21	0.0	0.9	-----	0.0	2.3	-----	0.0	3.9	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



DIXIE MEDICAL CENTER
Medicare Provider Number: 460021

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	74.4 years
Proportion female	47.8 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	56.6 %
Transferred from skilled nursing facility	0.1 %
Admitted for elective procedure	0.0 %
Admitted for emergency	41.8 %

COMORBIDITIES:

Cancer	7.3 %
Chronic cardiovascular disease	25.9 %
Chronic liver disease	0.9 %
Chronic renal disease	2.3 %
Chronic pulmonary disease	10.0 %
Cerebrovascular degeneration	2.0 %
Diabetes mellitus	6.5 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	62.9%
State	18.9%
Outside State	18.2%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	5.0 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	106
Occupancy Rate	66.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	36.2 %
Case Mix Index (CMI)	1.3764

STAFFING:

Total Number of Physicians	58
Percent of Physicians Board Certified Specialists	75.9 %
Medical Residents/Interns	0
Registered Nurses	147
Licensed Practical Nurses	26

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	Yes
Hospice Care	Yes
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	Yes
Medicare Swing Beds	Yes

** Except for CMI

* Not used in calculating mortality rates

DOXEY HATCH MEDICAL CENTER/HOSPITAL

1255 EAST 3900 SOUTH
SALT LAKE CITY, UT 84119
Medicare Provider Number: 460046

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	20	15.0	5.3	-----	30.0	7.8	-----	35.0	10.0	-----
CONDITIONS:										
Acute Myocardial Infarction	0									
Congestive Heart Failure	0									
Pneumonia/Influenza	2	50.0	11.3	-----	100.0	14.7	-----	100.0	17.8	-----
Chronic Obstructive Pulmonary Disease	0									
Transient Cerebral Ischemia	0									
Stroke	2	50.0	18.0	-----	100.0	23.1	-----	100.0	27.1	-----
Hip Fracture	0									
Sepsis	0									
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	0									
Hysterectomy	0									

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES

No Graphs are presented when the standard deviation was not computed for one or more of the three fiscal years, (1988, 1989, or 1990)

DOXEY HATCH MEDICAL CENTER/HOSPITAL

Medicare Provider Number: 460046

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	73.9 years
Proportion female	85.0 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	85.0 %
Transferred from skilled nursing facility	10.0 %
Admitted for elective procedure	0.0 %
Admitted for emergency	0.0 %

COMORBIDITIES:

Cancer	0.0 %
Chronic cardiovascular disease	15.0 %
Chronic liver disease	0.0 %
Chronic renal disease	0.0 %
Chronic pulmonary disease	10.0 %
Cerebrovascular degeneration	5.0 %
Diabetes mellitus	0.0 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	87.5%
State	8.3%
Outside State	4.2%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	2.5 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: Health Care Financing Administration (OSCAR)** - Survey Year 1991

PROFILE:

Total Beds	12
Ownership/Control	Private, For Profit
Case Mix Index (CMI)	0.9775

STAFFING:

Medical Residents/Interns	1
Registered Nurses	8
Licensed Practical Nurses	1

SPECIALTY SERVICES:

Burn Unit	No
Coronary Care Unit	No
Hospice Care	No
Intensive Care Unit	No
Organ Transplant	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	Yes
Psychiatric	No
Medicare Swing Beds	No

** Except for CMI

*** Not used in calculating mortality rates**

DUCHESNE COUNTY HOSPITAL

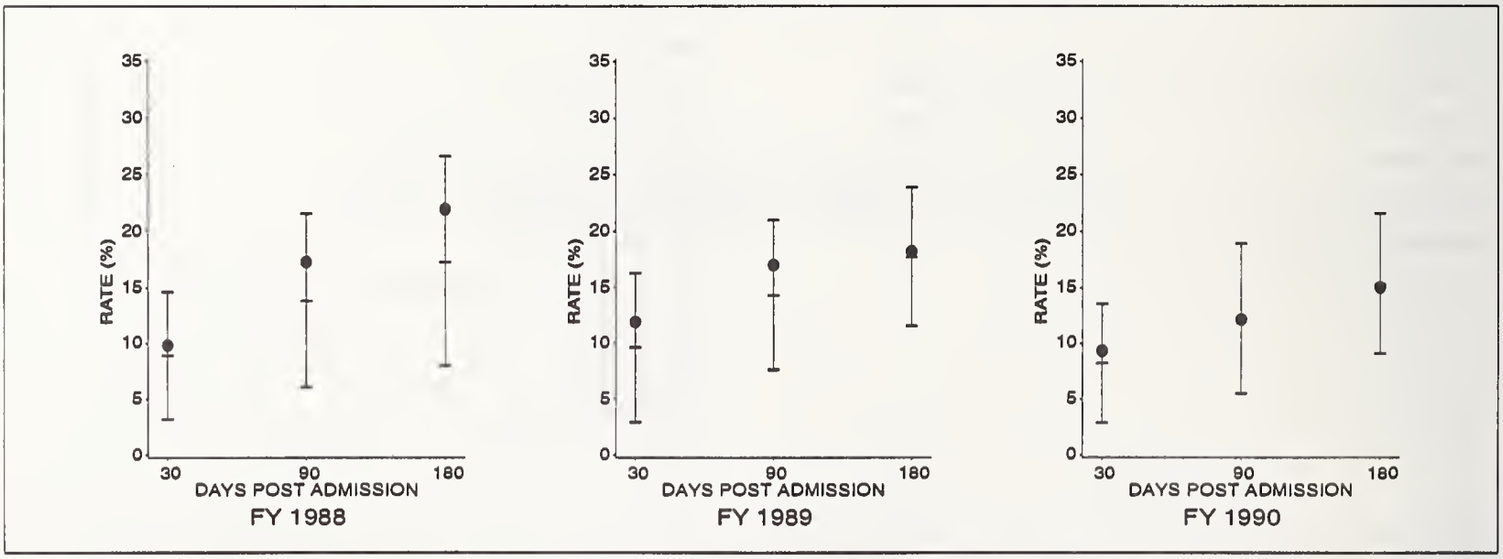
250 W 3RD N
ROOSEVELT, UT 84066
Medicare Provider Number: 460019

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%) 30 DAYS OBS	30 DAYS PRED	30 DAYS SD*	90 DAYS OBS	90 DAYS PRED	90 DAYS SD*	180 DAYS OBS	180 DAYS PRED	180 DAYS SD*
ALL CAUSES	140	9.3	8.2	2.7	12.1	12.2	3.4	15.0	15.3	3.1
CONDITIONS:										
Acute Myocardial Infarction	6	16.7	20.4	-----	16.7	22.6	-----	16.7	25.3	-----
Congestive Heart Failure	10	20.0	14.3	-----	20.0	23.6	-----	50.0	30.2	-----
Pneumonia/Influenza	17	5.9	14.0	-----	11.8	19.1	-----	11.8	22.7	-----
Chronic Obstructive Pulmonary Disease	3	0.0	2.9	-----	0.0	5.8	-----	0.0	9.1	-----
Transient Cerebral Ischemia	2	50.0	2.8	-----	50.0	7.0	-----	50.0	12.6	-----
Stroke	5	20.0	22.3	-----	40.0	32.2	-----	40.0	37.3	-----
Hip Fracture	2	0.0	5.5	-----	0.0	8.6	-----	0.0	10.9	-----
Sepsis	1	0.0	24.0	-----	0.0	28.0	-----	0.0	32.3	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	5	0.0	2.0	-----	0.0	4.9	-----	0.0	8.2	-----
Cholecystectomy	6	0.0	0.9	-----	0.0	1.6	-----	0.0	2.3	-----
Hysterectomy	1	0.0	0.1	-----	0.0	0.2	-----	0.0	0.3	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases Is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



DUCHESNE COUNTY HOSPITAL
Medicare Provider Number: 460019

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	74.5 years
Proportion female	42.9 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	67.1 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	5.0 %
Admitted for emergency	28.6 %

COMORBIDITIES:

Cancer	2.9 %
Chronic cardiovascular disease	32.9 %
Chronic liver disease	0.7 %
Chronic renal disease	6.4 %
Chronic pulmonary disease	20.0 %
Cerebrovascular degeneration	1.4 %
Diabetes mellitus	10.7 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	68.2%
State	29.1%
Outside State	2.7%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	4.1 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	42
Occupancy Rate	38.0 %
Ownership/Control	Local Government
Medicare Discharges	13.8 %
Case Mix Index (CMI)	0.9811

STAFFING:

Total Number of Physicians	12
Percent of Physicians Board Certified Specialists	41.7 %
Medical Residents/Interns	0
Registered Nurses	25
Licensed Practical Nurses	19

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	No

** Except for CMI

*** Not used in calculating mortality rates**

FILLMORE COMMUNITY MEDICAL CENTER

674 SO HIGHWAY 99
FILLMORE, UT 84631
Medicare Provider Number: 460022

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%) 30 DAYS OBS	30 DAYS PRED	30 DAYS SD*	90 DAYS OBS	90 DAYS PRED	90 DAYS SD*	180 DAYS OBS	180 DAYS PRED	180 DAYS SD*
ALL CAUSES	59	15.3	9.0	8.1	20.3	13.1	8.9	22.0	16.3	9.1
CONDITIONS:										
Acute Myocardial Infarction	3	33.3	30.8	-----	33.3	34.0	-----	66.7	36.8	-----
Congestive Heart Failure	7	28.6	13.2	-----	28.6	20.6	-----	28.6	26.4	-----
Pneumonia/Influenza	6	0.0	5.7	-----	0.0	8.2	-----	0.0	10.2	-----
Chronic Obstructive Pulmonary Disease	1	100.0	3.6	-----	100.0	6.8	-----	100.0	10.6	-----
Transient Cerebral Ischemia	0									
Stroke	4	25.0	15.9	-----	50.0	22.5	-----	50.0	27.1	-----
Hip Fracture	0									
Sepsis	1	100.0	18.5	-----	100.0	27.8	-----	100.0	33.6	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	0									
Hysterectomy	0									

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES

No Graphs are presented when the standard deviation was not computed for one or more of the three fiscal years, (1988, 1989, or 1990)

FILLMORE COMMUNITY MEDICAL CENTER

Medicare Provider Number: 460022

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	76.5 years
Proportion female	57.6 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	47.5 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	54.2 %
Admitted for emergency	0.0 %

COMORBIDITIES:

Cancer	3.4 %
Chronic cardiovascular disease	39.0 %
Chronic liver disease	0.0 %
Chronic renal disease	3.4 %
Chronic pulmonary disease	11.9 %
Cerebrovascular degeneration	1.7 %
Diabetes mellitus	0.0 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	90.8%
State	2.6%
Outside State	6.6%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.7 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	20
Occupancy Rate	70.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	28.0 %
Case Mix Index (CMI)	0.9712

STAFFING:

Total Number of Physicians	2
Percent of Physicians Board Certified Specialists	100.0 %
Medical Residents/Interns	0
Registered Nurses	10
Licensed Practical Nurses	5

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

** Except for CMI

*** Not used in calculating mortality rates**

GARFIELD MEMORIAL HOSPITAL

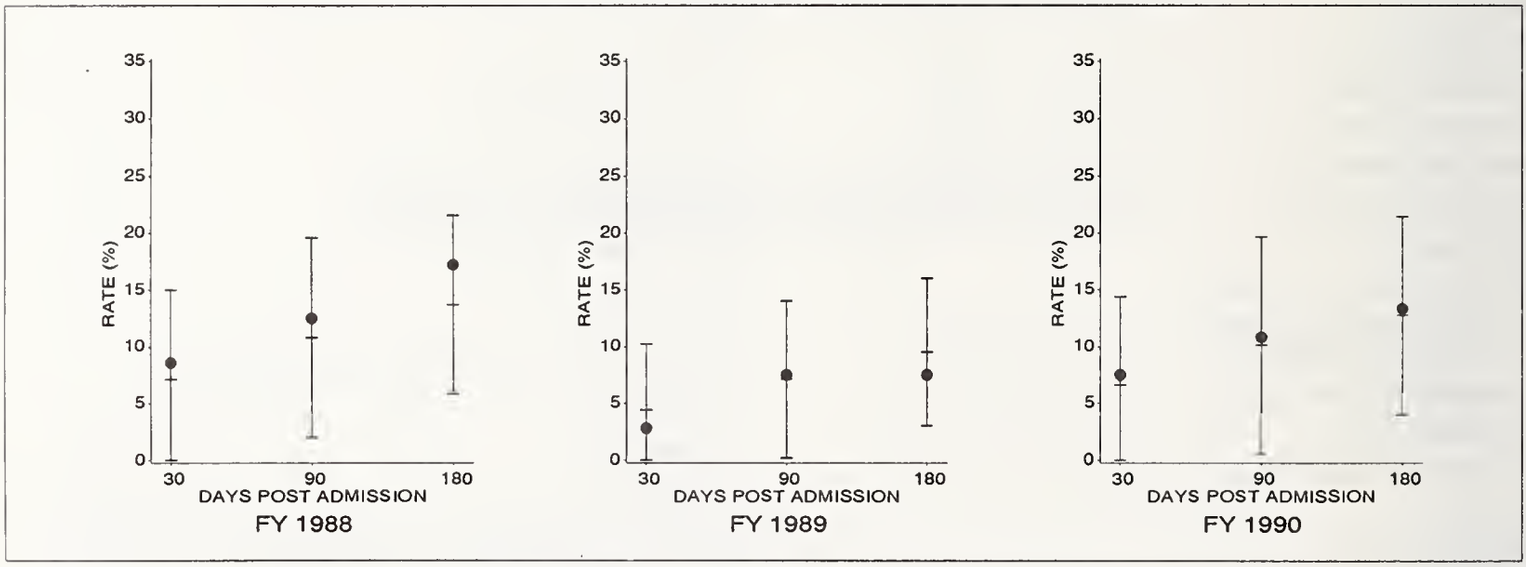
200 N 400 E
PANGUITCH, UT 84759
Medicare Provider Number: 460033

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	120	7.5	6.6	3.9	10.8	10.1	4.8	13.3	12.7	4.4
CONDITIONS:										
Acute Myocardial Infarction	8	0.0	14.1	-----	0.0	16.7	-----	0.0	19.2	-----
Congestive Heart Failure	6	16.7	12.5	-----	16.7	20.5	-----	16.7	25.7	-----
Pneumonia/Influenza	7	14.3	10.4	-----	14.3	14.0	-----	14.3	16.7	-----
Chronic Obstructive Pulmonary Disease	5	0.0	8.6	-----	0.0	15.9	-----	20.0	21.2	-----
Transient Cerebral Ischemia	2	0.0	3.8	-----	0.0	8.8	-----	0.0	14.1	-----
Stroke	4	0.0	9.1	-----	0.0	13.3	-----	0.0	16.2	-----
Hip Fracture	0									
Sepsis	1	100.0	20.6	-----	100.0	24.9	-----	100.0	26.9	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	5	0.0	1.9	-----	0.0	3.2	-----	0.0	4.1	-----
Hysterectomy	2	0.0	1.7	-----	0.0	3.7	-----	0.0	5.9	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



GARFIELD MEMORIAL HOSPITAL
Medicare Provider Number: 460033

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	74.5 years
Proportion female	47.5 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	55.8 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	3.3 %
Admitted for emergency	3.3 %

COMORBIDITIES:

Cancer	4.2 %
Chronic cardiovascular disease	22.5 %
Chronic liver disease	0.0 %
Chronic renal disease	0.0 %
Chronic pulmonary disease	13.3 %
Cerebrovascular degeneration	0.8 %
Diabetes mellitus	4.2 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	61.8%
State	27.0%
Outside State	11.2%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.7 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	20
Occupancy Rate	70.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	30.5 %
Case Mix Index (CMI)	0.8510

STAFFING:

Total Number of Physicians	3
Percent of Physicians Board Certified Specialists	33.3 %
Medical Residents/Interns	0
Registered Nurses	8
Licensed Practical Nurses	4

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

* Not used in calculating mortality rates

GUNNISON VALLEY HOSPITAL

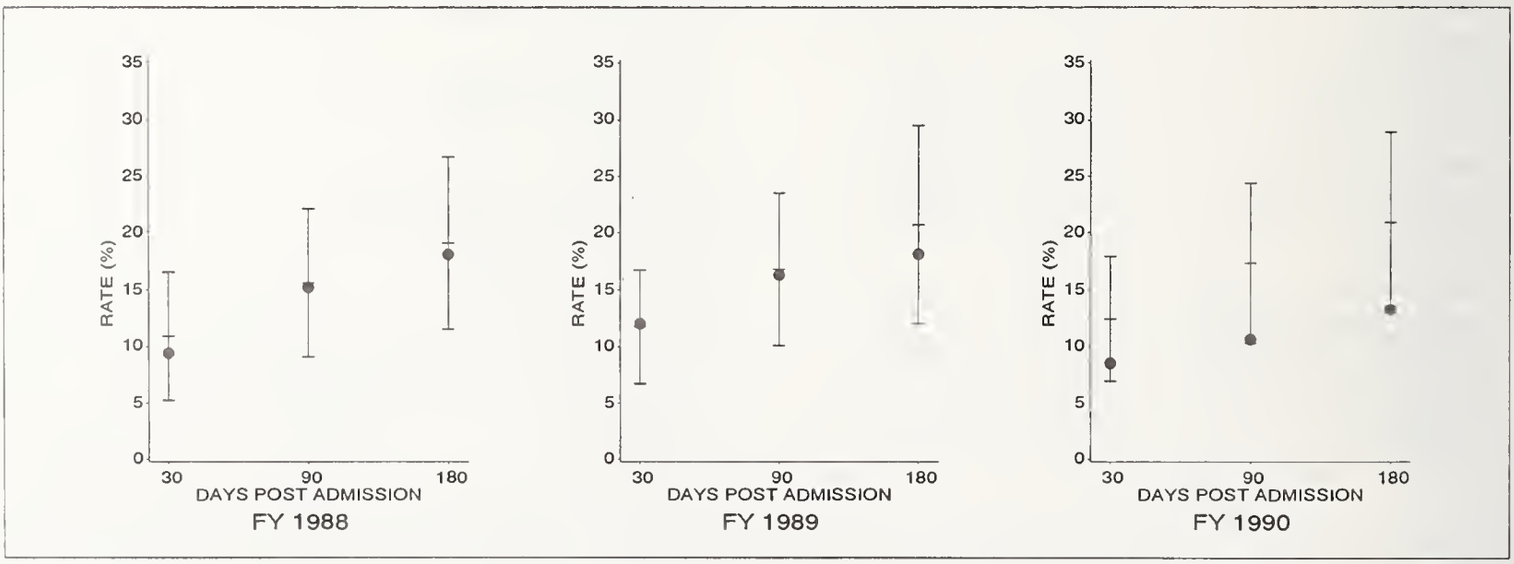
60 EAST 100 NORTH
GUNNISON, UT 84634
Medicare Provider Number: 460037

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	189	8.5	12.4	2.8	10.6	17.3	3.5	13.2	20.9	4.0
CONDITIONS:										
Acute Myocardial Infarction	14	28.6	33.5	-----	28.6	36.7	-----	28.6	40.3	-----
Congestive Heart Failure	8	0.0	16.6	-----	12.5	26.5	-----	12.5	33.4	-----
Pneumonia/Influenza	23	13.0	15.0	-----	17.4	20.6	-----	17.4	24.6	-----
Chronic Obstructive Pulmonary Disease	8	0.0	9.6	-----	0.0	17.7	-----	0.0	23.0	-----
Transient Cerebral Ischemia	0									
Stroke	10	30.0	21.1	-----	40.0	26.6	-----	40.0	30.0	-----
Hip Fracture	0									
Sepsis	7	0.0	24.1	-----	0.0	29.0	-----	0.0	32.6	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	2	0.0	1.8	-----	0.0	3.0	-----	0.0	4.2	-----
Hysterectomy	0									

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



GUNNISON VALLEY HOSPITAL
Medicare Provider Number: 460037

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	78.0 years
Proportion female	54.0 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	84.7 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	0.0 %
Admitted for emergency	96.3 %

COMORBIDITIES:

Cancer	4.2 %
Chronic cardiovascular disease	35.4 %
Chronic liver disease	0.5 %
Chronic renal disease	3.7 %
Chronic pulmonary disease	9.0 %
Cerebrovascular degeneration	3.7 %
Diabetes mellitus	17.5 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	48.5%
State	49.2%
Outside State	2.3%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	4.3 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	21
Occupancy Rate	47.0 %
Ownership/Control	District/Authority
Medicare Discharges	46.8 %
Case Mix Index (CMI)	0.9668

STAFFING:

Total Number of Physicians	8
Percent of Physicians Board Certified Specialists	75.0 %
Medical Residents/Interns	0
Registered Nurses	9
Licensed Practical Nurses	5

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

*** Not used in calculating mortality rates**

HCA ST MARKS HOSPITAL

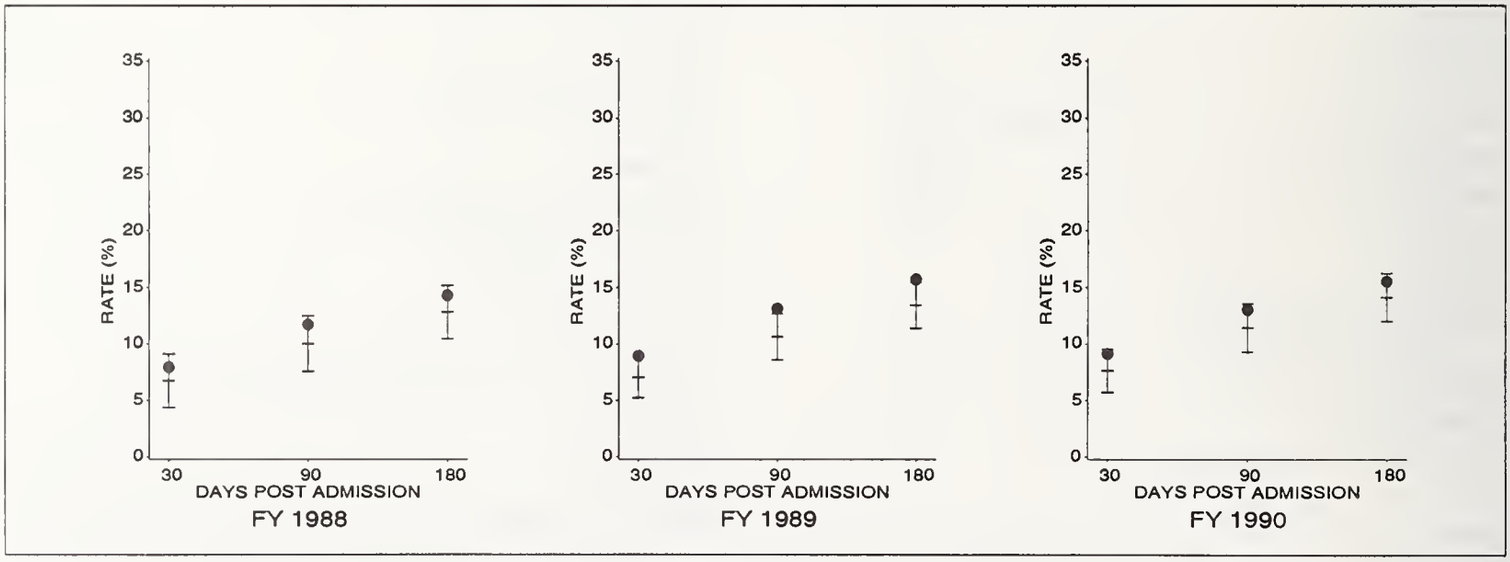
1200 EAST 3900 SOUTH
SALT LAKE CITY, UT 84124
Medicare Provider Number: 460047

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	2101	9.1	7.6	1.0	13.0	11.4	1.1	15.5	14.1	1.1
CONDITIONS:										
Acute Myocardial Infarction	82	20.7	26.0	8.4	24.4	28.8	9.5	26.8	31.4	10.5
Congestive Heart Failure	55	29.1	13.9	7.5	38.2	22.2	8.3	43.6	28.3	9.6
Pneumonia/Influenza	76	17.1	14.8	5.0	22.4	20.5	5.1	23.7	24.2	6.0
Chronic Obstructive Pulmonary Disease	8	12.5	8.8	-----	12.5	14.3	-----	25.0	18.6	-----
Transient Cerebral Ischemia	13	7.7	1.3	-----	15.4	2.9	-----	15.4	4.6	-----
Stroke	66	22.7	20.8	5.2	31.8	26.5	7.5	36.4	30.1	8.9
Hip Fracture	69	2.9	5.7	4.3	8.7	10.3	6.0	8.7	13.6	6.8
Sepsis	18	22.2	19.1	-----	27.8	26.9	-----	33.3	31.4	-----
PROCEDURES:										
Angioplasty	85	4.7	2.9	2.5	5.9	3.7	3.2	5.9	4.5	3.3
Coronary Artery Bypass Graft	73	2.7	5.1	3.5	5.5	7.1	4.7	6.8	8.0	5.0
Initial Pacemaker Insertion	20	0.0	3.2	-----	0.0	5.3	-----	0.0	7.1	-----
Carotid Endarterectomy	12	8.3	2.1	-----	16.7	4.1	-----	16.7	6.0	-----
Hip Replacement/Reconstruction	105	1.9	2.5	1.6	2.9	4.7	2.7	3.8	6.4	3.4
Open Reduction of Hip Fracture	29	3.4	4.7	-----	10.3	8.6	-----	10.3	11.6	-----
Prostatectomy	59	1.7	1.0	1.4	1.7	2.3	2.1	3.4	3.9	3.4
Cholecystectomy	69	1.4	2.2	2.1	5.8	4.0	2.7	7.2	5.5	4.3
Hysterectomy	42	0.0	0.3	-----	0.0	0.6	-----	0.0	0.9	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



HCA ST MARKS HOSPITAL
Medicare Provider Number: 460047

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	73.1 years
Proportion female	53.9 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	66.8 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	21.2 %
Admitted for emergency	15.8 %

COMORBIDITIES:

Cancer	5.9 %
Chronic cardiovascular disease	42.0 %
Chronic liver disease	0.7 %
Chronic renal disease	3.0 %
Chronic pulmonary disease	11.5 %
Cerebrovascular degeneration	2.6 %
Diabetes mellitus	7.3 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	81.2%
State	12.2%
Outside State	6.6%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	7.5 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	216
Occupancy Rate	63.0 %
Ownership/Control	Private, For Profit
Medicare Discharges	25.6 %
Case Mix Index (CMI)	1.6773

STAFFING:

Total Number of Physicians	174
Percent of Physicians Board Certified Specialists	95.4 %
Medical Residents/Interns	0
Registered Nurses	299
Licensed Practical Nurses	27

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	Yes
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	Yes
Medicare Swing Beds	No

** Except for CMI

*** Not used in calculating mortality rates**

HOLY CROSS HOSPITAL

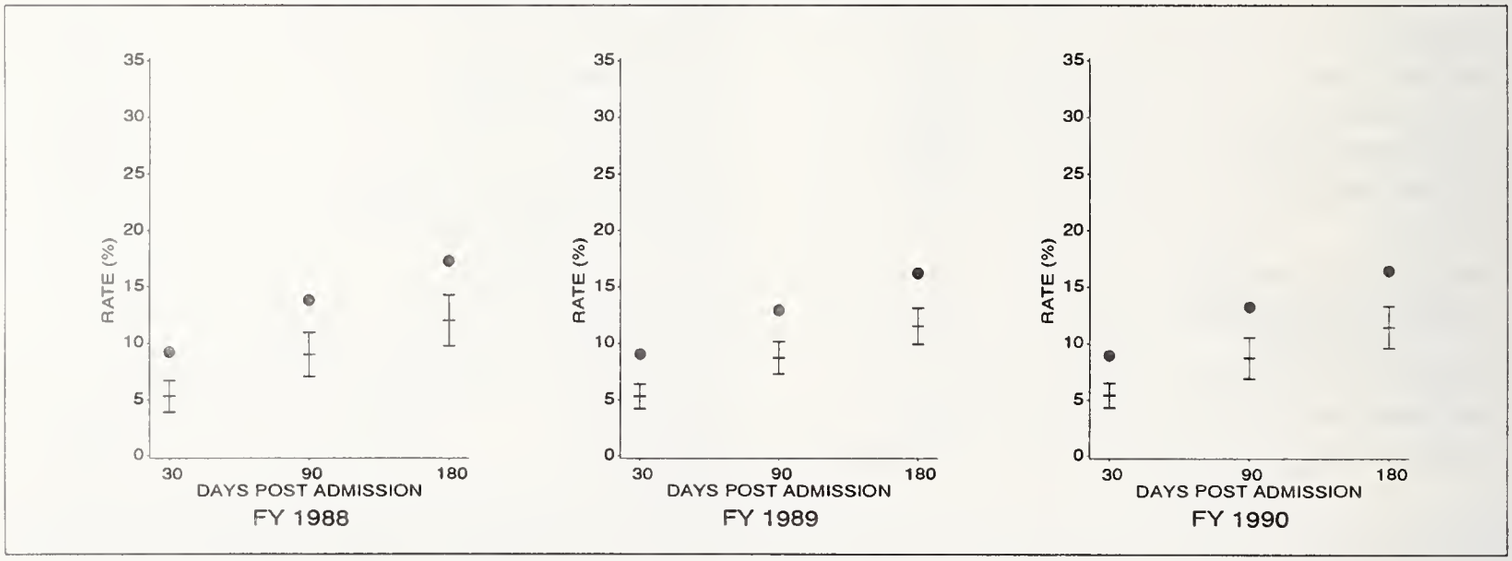
1050 EAST SOUTH TEMPLE
SALT LAKE CITY, UT 84102
Medicare Provider Number: 460003

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	2470	8.9	5.4	0.5	13.2	8.7	0.9	16.4	11.4	0.9
CONDITIONS:										
Acute Myocardial Infarction	81	12.3	16.4	4.3	13.6	19.5	4.7	14.8	22.4	5.1
Congestive Heart Failure	89	16.9	11.5	4.1	24.7	19.0	4.8	34.8	24.6	6.2
Pneumonia/Influenza	134	9.7	9.5	3.0	12.7	13.6	3.2	14.2	16.6	3.8
Chronic Obstructive Pulmonary Disease	37	16.2	5.1	-----	24.3	9.7	-----	27.0	13.8	-----
Transient Cerebral Ischemia	22	0.0	1.3	-----	0.0	3.0	-----	0.0	5.1	-----
Stroke	85	25.9	13.2	6.2	30.6	18.4	6.5	32.9	22.3	6.2
Hip Fracture	108	8.3	3.7	2.1	18.5	6.9	3.6	25.0	9.4	4.5
Sepsis	30	16.7	16.6	-----	20.0	23.9	-----	36.7	28.9	-----
PROCEDURES:										
Angioplasty	47	4.3	3.2	-----	4.3	4.0	-----	4.3	4.8	-----
Coronary Artery Bypass Graft	53	1.9	3.6	3.2	3.8	5.3	4.1	3.8	6.1	4.3
Initial Pacemaker Insertion	17	0.0	1.6	-----	11.8	3.4	-----	11.8	5.3	-----
Carotid Endarterectomy	10	0.0	1.6	-----	0.0	3.3	-----	0.0	5.0	-----
Hip Replacement/Reconstruction	85	3.5	1.7	2.1	7.1	3.3	3.6	7.1	4.8	5.0
Open Reduction of Hip Fracture	55	10.9	3.9	3.1	21.8	7.0	5.0	32.7	9.5	7.4
Prostatectomy	121	0.8	0.7	1.3	1.7	1.6	2.7	5.0	2.8	3.0
Cholecystectomy	70	4.3	1.8	3.0	8.6	3.8	4.9	10.0	5.8	4.5
Hysterectomy	34	0.0	0.4	-----	0.0	0.9	-----	0.0	1.4	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



HOLY CROSS HOSPITAL
Medicare Provider Number: 460003

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	73.6 years
Proportion female	55.5 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	95.4 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	83.8 %
Admitted for emergency	7.5 %

COMORBIDITIES:

Cancer	5.0 %
Chronic cardiovascular disease	32.3 %
Chronic liver disease	1.1 %
Chronic renal disease	2.4 %
Chronic pulmonary disease	13.0 %
Cerebrovascular degeneration	3.2 %
Diabetes mellitus	9.2 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	81.4%
State	11.6%
Outside State	7.0%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	5.4 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: Health Care Financing Administration (OSCAR)** - Survey Year 1991

PROFILE:

Total Beds	293
Ownership/Control	Church
Case Mix Index (CMI)	1.4222

STAFFING:

Medical Residents/Interns	1
Registered Nurses	173
Licensed Practical Nurses	47

SPECIALTY SERVICES:

Burn Unit	No
Coronary Care Unit	Yes
Hospice Care	No
Intensive Care Unit	Yes
Organ Transplant	No
Trauma Center	Yes

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	Yes
Psychiatric	Yes
Medicare Swing Beds	No

** Except for CMI

* Not used in calculating mortality rates

HUMANA HOSPITAL DAVIS NORTH

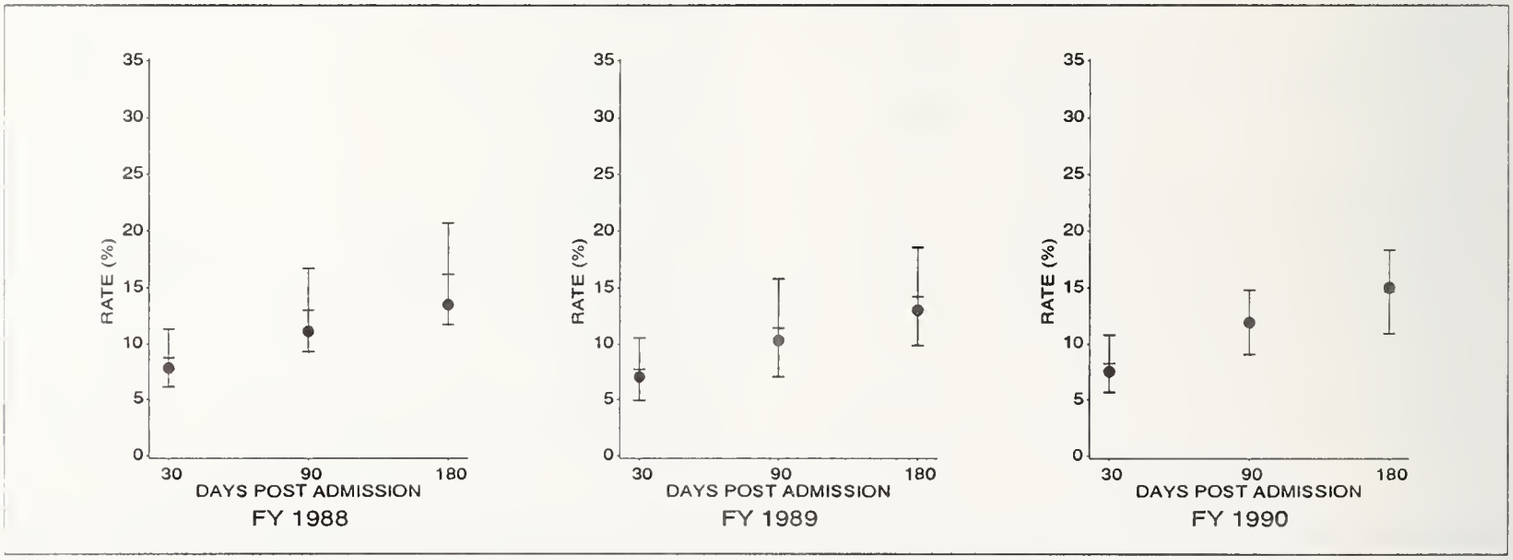
1600 WEST ANTELOPE DRIVE
LAYTON, UT 84041
Medicare Provider Number: 460041

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	599	7.5	8.2	1.3	11.9	11.9	1.4	15.0	14.6	1.9
CONDITIONS:										
Acute Myocardial Infarction	27	29.6	22.5	-----	29.6	25.3	-----	29.6	27.8	-----
Congestive Heart Failure	23	21.7	14.1	-----	26.1	22.9	-----	34.8	29.5	-----
Pneumonia/Influenza	31	12.9	10.5	-----	16.1	14.9	-----	25.8	17.8	-----
Chronic Obstructive Pulmonary Disease	11	9.1	10.7	-----	18.2	18.6	-----	36.4	23.3	-----
Transient Cerebral Ischemia	14	7.1	2.7	-----	21.4	5.8	-----	21.4	8.9	-----
Stroke	30	16.7	21.1	-----	20.0	26.5	-----	20.0	30.0	-----
Hip Fracture	14	7.1	4.5	-----	14.3	8.0	-----	21.4	10.7	-----
Sepsis	10	40.0	24.4	-----	40.0	31.2	-----	40.0	35.0	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	5	0.0	2.2	-----	0.0	4.1	-----	0.0	6.0	-----
Carotid Endarterectomy	2	0.0	1.4	-----	0.0	2.8	-----	0.0	4.2	-----
Hip Replacement/Reconstruction	4	25.0	3.6	-----	25.0	6.6	-----	25.0	8.7	-----
Open Reduction of Hip Fracture	8	0.0	3.1	-----	12.5	6.0	-----	12.5	8.8	-----
Prostatectomy	46	0.0	0.5	-----	0.0	1.2	-----	0.0	2.1	-----
Cholecystectomy	11	0.0	0.9	-----	9.1	1.6	-----	9.1	2.2	-----
Hysterectomy	6	0.0	0.2	-----	0.0	0.4	-----	0.0	0.7	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



HUMANA HOSPITAL DAVIS NORTH

Medicare Provider Number: 460041

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	73.8 years
Proportion female	51.8 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	62.3 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	3.3 %
Admitted for emergency	12.5 %

COMORBIDITIES:

Cancer	3.2 %
Chronic cardiovascular disease	34.1 %
Chronic liver disease	0.5 %
Chronic renal disease	3.0 %
Chronic pulmonary disease	10.2 %
Cerebrovascular degeneration	2.7 %
Diabetes mellitus	9.8 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	77.7%
State	17.9%
Outside State	4.4%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	5.5 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	110
Occupancy Rate	37.0 %
Ownership/Control	Private, For Profit
Medicare Discharges	20.6 %
Case Mix Index (CMI)	1.2026

STAFFING:

Total Number of Physicians	96
Percent of Physicians Board Certified Specialists	59.4 %
Medical Residents/Interns	0
Registered Nurses	87
Licensed Practical Nurses	14

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	No

** Except for CMI

* Not used in calculating mortality rates

KANE COUNTY HOSPITAL

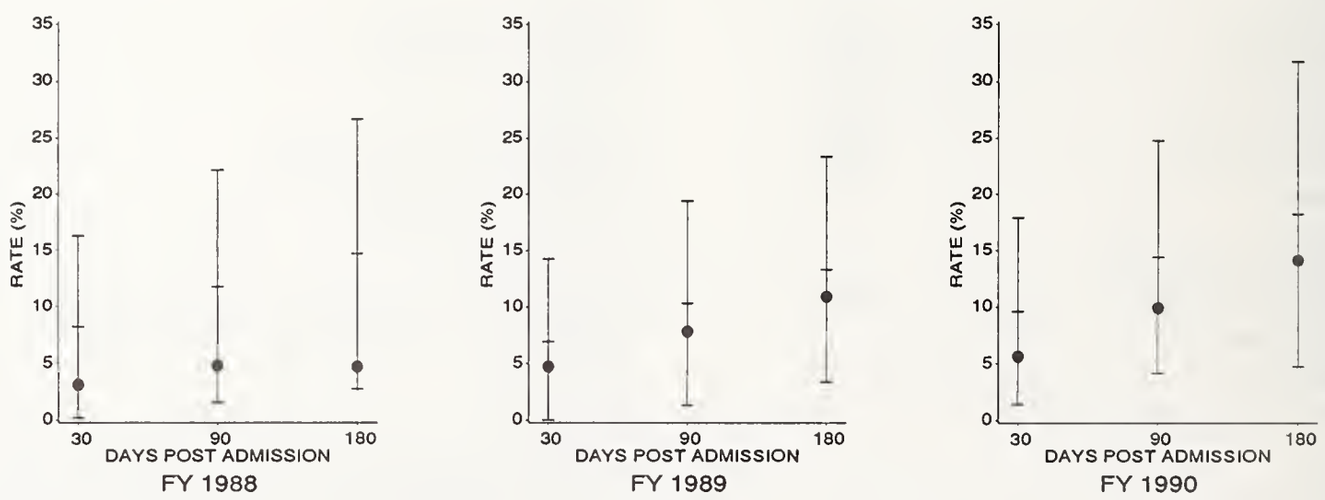
220 WEST 300 NORTH
KANAB, UT 84741
Medicare Provider Number: 460018

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%) 30 DAYS OBS	30 DAYS PRED	30 DAYS SD*	90 DAYS OBS	90 DAYS PRED	90 DAYS SD*	180 DAYS OBS	180 DAYS PRED	180 DAYS SD*
ALL CAUSES	71	5.6	9.6	4.2	9.9	14.4	5.2	14.1	18.2	6.7
CONDITIONS:										
Acute Myocardial Infarction	4	0.0	23.6	-----	0.0	25.2	-----	25.0	27.4	-----
Congestive Heart Failure	9	22.2	14.9	-----	22.2	21.8	-----	22.2	28.2	-----
Pneumonia/Influenza	9	11.1	7.4	-----	11.1	10.5	-----	11.1	13.0	-----
Chronic Obstructive Pulmonary Disease	1	0.0	4.0	-----	0.0	6.7	-----	0.0	9.7	-----
Transient Cerebral Ischemia	2	0.0	2.1	-----	0.0	4.5	-----	0.0	7.0	-----
Stroke	3	0.0	22.1	-----	0.0	32.7	-----	0.0	38.9	-----
Hip Fracture	0									
Sepsis	0									
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	0									
Hysterectomy	1	0.0	0.2	-----	0.0	0.4	-----	0.0	0.8	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



KANE COUNTY HOSPITAL
Medicare Provider Number: 460018

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	75.3 years
Proportion female	49.3 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	46.5 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	0.0 %
Admitted for emergency	56.3 %

COMORBIDITIES:

Cancer	5.6 %
Chronic cardiovascular disease	35.2 %
Chronic liver disease	2.8 %
Chronic renal disease	4.2 %
Chronic pulmonary disease	11.3 %
Cerebrovascular degeneration	5.6 %
Diabetes mellitus	12.7 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	79.3%
State	2.2%
Outside State	18.5%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.7 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	33
Occupancy Rate	51.0 %
Ownership/Control	District/Authority
Medicare Discharges	30.0 %
Case Mix Index (CMI)	0.9298

STAFFING:

Total Number of Physicians	3
Percent of Physicians Board Certified Specialists	(Not Available)
Medical Residents/Interns	0
Registered Nurses	4
Licensed Practical Nurses	2

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

*** Not used in calculating mortality rates**

LAKEVIEW HOSPITAL

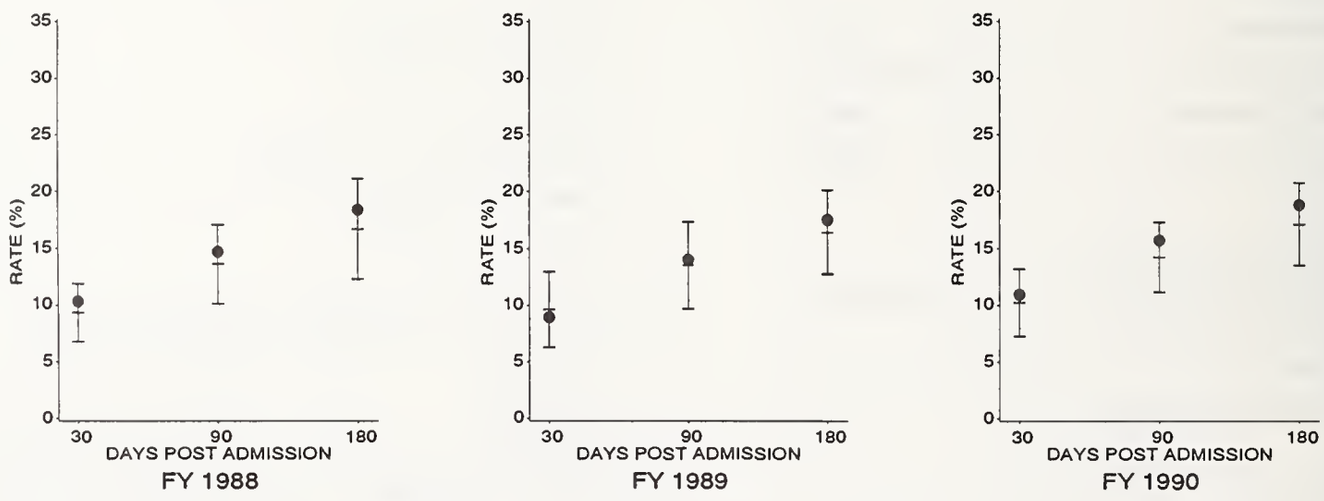
630 EAST MEDICAL DRIVE
BOUNTIFUL, UT 84010
Medicare Provider Number: 460042

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%) 30 DAYS OBS	30 DAYS PRED	30 DAYS SD*	90 DAYS OBS	90 DAYS PRED	90 DAYS SD*	180 DAYS OBS	180 DAYS PRED	180 DAYS SD*
ALL CAUSES	728	10.9	10.2	1.5	15.7	14.2	1.5	18.8	17.1	1.8
CONDITIONS:										
Acute Myocardial Infarction	40	25.0	25.6	-----	27.5	28.2	-----	30.0	30.6	-----
Congestive Heart Failure	31	12.9	14.0	-----	12.9	21.4	-----	16.1	27.1	-----
Pneumonia/Influenza	46	6.5	15.7	-----	19.6	21.1	-----	26.1	24.7	-----
Chronic Obstructive Pulmonary Disease	1	0.0	5.3	-----	0.0	9.5	-----	0.0	14.5	-----
Transient Cerebral Ischemia	2	0.0	1.4	-----	0.0	3.4	-----	0.0	5.6	-----
Stroke	42	23.8	23.3	-----	26.2	28.3	-----	26.2	32.1	-----
Hip Fracture	31	3.2	6.4	-----	19.4	11.5	-----	29.0	15.2	-----
Sepsis	15	20.0	23.9	-----	20.0	29.7	-----	33.3	33.8	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	4	0.0	2.8	-----	0.0	6.0	-----	25.0	8.9	-----
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	23	0.0	2.8	-----	4.3	5.1	-----	13.0	6.9	-----
Open Reduction of Hip Fracture	15	6.7	5.7	-----	26.7	10.6	-----	26.7	14.2	-----
Prostatectomy	44	0.0	0.9	-----	2.3	2.1	-----	2.3	3.5	-----
Cholecystectomy	38	10.5	3.8	-----	13.2	6.7	-----	18.4	8.6	-----
Hysterectomy	13	0.0	0.5	-----	0.0	1.1	-----	0.0	1.8	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



LAKEVIEW HOSPITAL
Medicare Provider Number: 460042

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	76.5 years
Proportion female	58.0 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	64.7 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	22.3 %
Admitted for emergency	44.9 %

COMORBIDITIES:

Cancer	3.4 %
Chronic cardiovascular disease	49.5 %
Chronic liver disease	0.4 %
Chronic renal disease	1.8 %
Chronic pulmonary disease	10.4 %
Cerebrovascular degeneration	2.5 %
Diabetes mellitus	6.7 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	76.7%
State	18.5%
Outside State	4.8%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	5.0 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	128
Occupancy Rate	43.0 %
Ownership/Control	Private, For Profit
Medicare Discharges	(Not Available)
Case Mix Index (CMI)	1.3542

STAFFING:

Total Number of Physicians	69
Percent of Physicians Board Certified Specialists	75.4 %
Medical Residents/Interns	0
Registered Nurses	94
Licensed Practical Nurses	32

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	Yes
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	Yes
Rehabilitation	No
Psychiatric	Yes
Medicare Swing Beds	No

** Except for CMI

*** Not used in calculating mortality rates**

LATTER-DAY SAINTS HOSPITAL

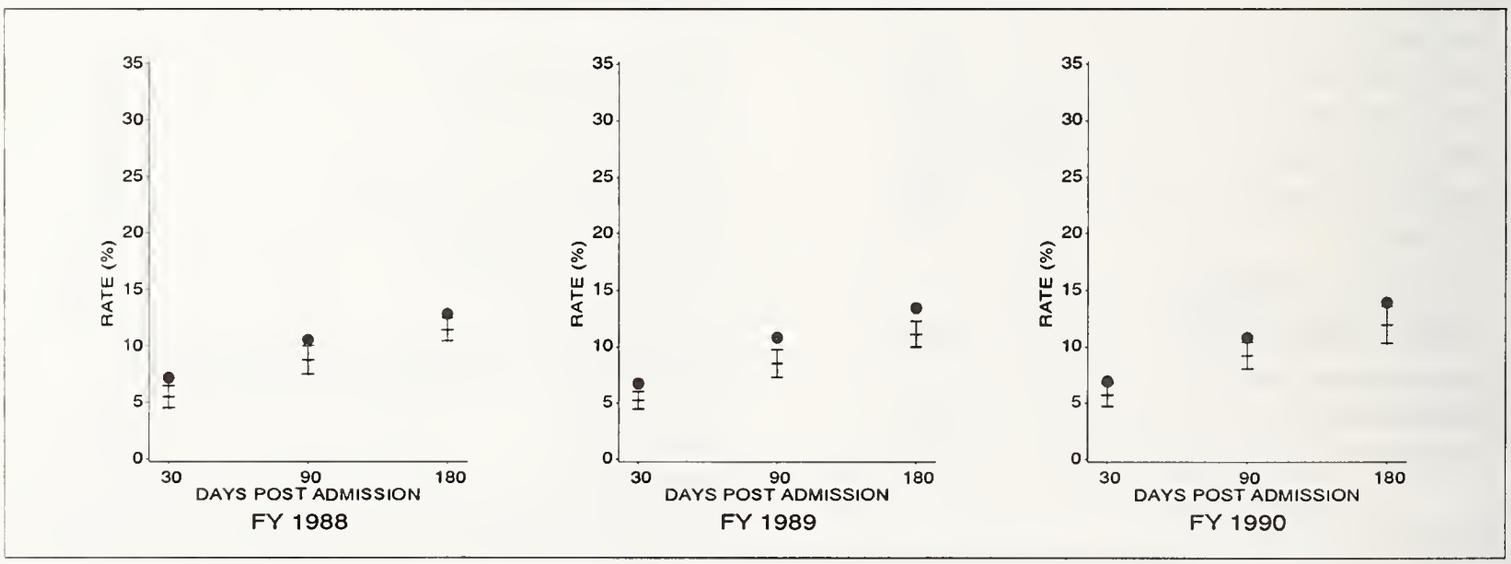
325 EIGHTH AVE
SALT LAKE CITY, UT 84143
Medicare Provider Number: 460010

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	4092	6.9	5.7	0.5	10.8	9.2	0.6	13.9	11.9	0.8
CONDITIONS:										
Acute Myocardial Infarction	134	18.7	18.6	3.9	22.4	21.3	3.6	26.9	23.8	4.2
Congestive Heart Failure	138	13.8	12.8	3.1	20.3	20.4	3.4	29.7	26.2	4.8
Pneumonia/Influenza	121	8.3	11.6	3.4	15.7	16.3	3.4	22.3	19.5	4.0
Chronic Obstructive Pulmonary Disease	11	18.2	5.4	-----	18.2	9.7	-----	18.2	13.7	-----
Transient Cerebral Ischemia	14	7.1	5.2	-----	14.3	9.7	-----	28.6	13.1	-----
Stroke	116	23.3	16.7	6.2	31.0	22.9	5.6	34.5	26.8	5.4
Hip Fracture	109	5.5	5.9	3.5	18.3	10.9	4.6	23.9	14.6	5.4
Sepsis	27	14.8	14.9	-----	14.8	20.9	-----	22.2	24.6	-----
PROCEDURES:										
Angioplasty	60	3.3	2.6	2.3	3.3	3.4	2.4	5.0	4.3	2.8
Coronary Artery Bypass Graft	236	3.8	3.9	2.1	4.2	5.6	2.8	4.7	6.4	3.1
Initial Pacemaker Insertion	40	2.5	2.2	-----	2.5	4.4	-----	2.5	6.6	-----
Carotid Endarterectomy	50	6.0	1.2	-----	6.0	2.2	-----	6.0	3.4	-----
Hip Replacement/Reconstruction	207	1.4	1.7	1.3	4.8	3.3	1.9	6.3	4.6	2.7
Open Reduction of Hip Fracture	51	7.8	5.9	4.8	19.6	11.1	7.7	25.5	15.1	9.0
Prostatectomy	233	0.9	0.7	1.2	2.1	1.6	1.7	4.3	2.9	1.5
Cholecystectomy	151	4.0	1.9	1.6	4.6	3.9	1.9	6.6	5.5	2.0
Hysterectomy	82	0.0	0.5	0.8	1.2	1.1	1.3	1.2	1.8	1.6

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



LATTER-DAY SAINTS HOSPITAL
Medicare Provider Number: 460010

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	73.4 years
Proportion female	52.1 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	63.1 %
Transferred from skilled nursing facility	1.0 %
Admitted for elective procedure	95.8 %
Admitted for emergency	0.6 %

COMORBIDITIES:

Cancer	7.4 %
Chronic cardiovascular disease	35.1 %
Chronic liver disease	1.1 %
Chronic renal disease	3.8 %
Chronic pulmonary disease	7.5 %
Cerebrovascular degeneration	1.9 %
Diabetes mellitus	6.8 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	62.4%
State	22.8%
Outside State	14.8%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	7.0 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	427
Occupancy Rate	66.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	30.7 %
Case Mix Index (CMI)	1.9546

STAFFING:

Total Number of Physicians	340
Percent of Physicians Board Certified Specialists	87.4 %
Medical Residents/Interns	15
Registered Nurses	590
Licensed Practical Nurses	86

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	Yes
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	Yes
Other Intensive Care	No
Trauma Center	Yes

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	Yes
Rehabilitation	Yes
Psychiatric	Yes
Medicare Swing Beds	Yes

*** Not used in calculating mortality rates**

LOGAN HOSPITAL

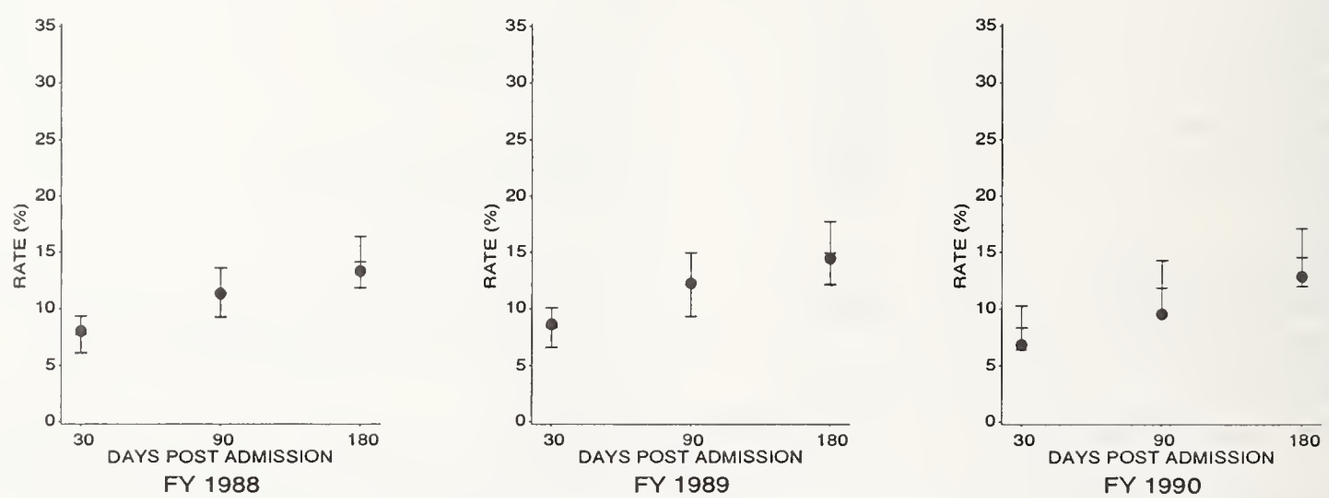
500 EAST 1400 NORTH
LOGAN, UT 84321
Medicare Provider Number: 460015

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	1213	6.8	8.3	1.0	9.5	11.8	1.2	12.8	14.5	1.3
CONDITIONS:										
Acute Myocardial Infarction	55	12.7	21.6	8.4	16.4	25.0	9.3	16.4	27.7	10.1
Congestive Heart Failure	42	11.9	15.2	-----	14.3	23.2	-----	23.8	28.7	-----
Pneumonia/Influenza	73	8.2	14.6	7.1	17.8	20.1	7.5	19.2	23.5	6.0
Chronic Obstructive Pulmonary Disease	8	0.0	8.8	-----	0.0	14.2	-----	25.0	19.4	-----
Transient Cerebral Ischemia	9	0.0	1.4	-----	0.0	3.2	-----	0.0	5.4	-----
Stroke	44	31.8	25.1	-----	34.1	31.0	-----	40.9	34.6	-----
Hip Fracture	45	2.2	5.9	-----	6.7	10.2	-----	11.1	13.1	-----
Sepsis	11	18.2	31.1	-----	18.2	38.6	-----	36.4	42.6	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	1	0.0	1.9	-----	0.0	4.0	-----	0.0	6.0	-----
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	51	0.0	2.6	2.8	2.0	4.8	3.6	2.0	6.4	5.6
Open Reduction of Hip Fracture	25	4.0	4.7	-----	8.0	8.5	-----	16.0	11.4	-----
Prostatectomy	67	0.0	0.5	1.2	0.0	1.2	2.2	0.0	2.2	3.3
Cholecystectomy	38	0.0	2.3	-----	0.0	3.6	-----	5.3	4.6	-----
Hysterectomy	17	0.0	0.6	-----	0.0	1.4	-----	0.0	2.3	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



LOGAN HOSPITAL
Medicare Provider Number: 460015

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	75.8 years
Proportion female	52.9 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	55.0 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	23.6 %
Admitted for emergency	0.9 %

COMORBIDITIES:

Cancer	3.8 %
Chronic cardiovascular disease	38.6 %
Chronic liver disease	0.9 %
Chronic renal disease	1.6 %
Chronic pulmonary disease	7.8 %
Cerebrovascular degeneration	2.7 %
Diabetes mellitus	5.4 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	71.2%
State	10.5%
Outside State	18.3%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	4.8 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	148
Occupancy Rate	46.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	(Not Available)
Case Mix Index (CMI)	1.2417

STAFFING:

Total Number of Physicians	89
Percent of Physicians Board Certified Specialists	(Not Available)
Medical Residents/Interns	0
Registered Nurses	133
Licensed Practical Nurses	9

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	Yes
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	Yes
Rehabilitation	No
Psychiatric	Yes
Medicare Swing Beds	Yes

** Except for CMI

*** Not used in calculating mortality rates**

MCKAY-DEE HOSPITAL CENTER

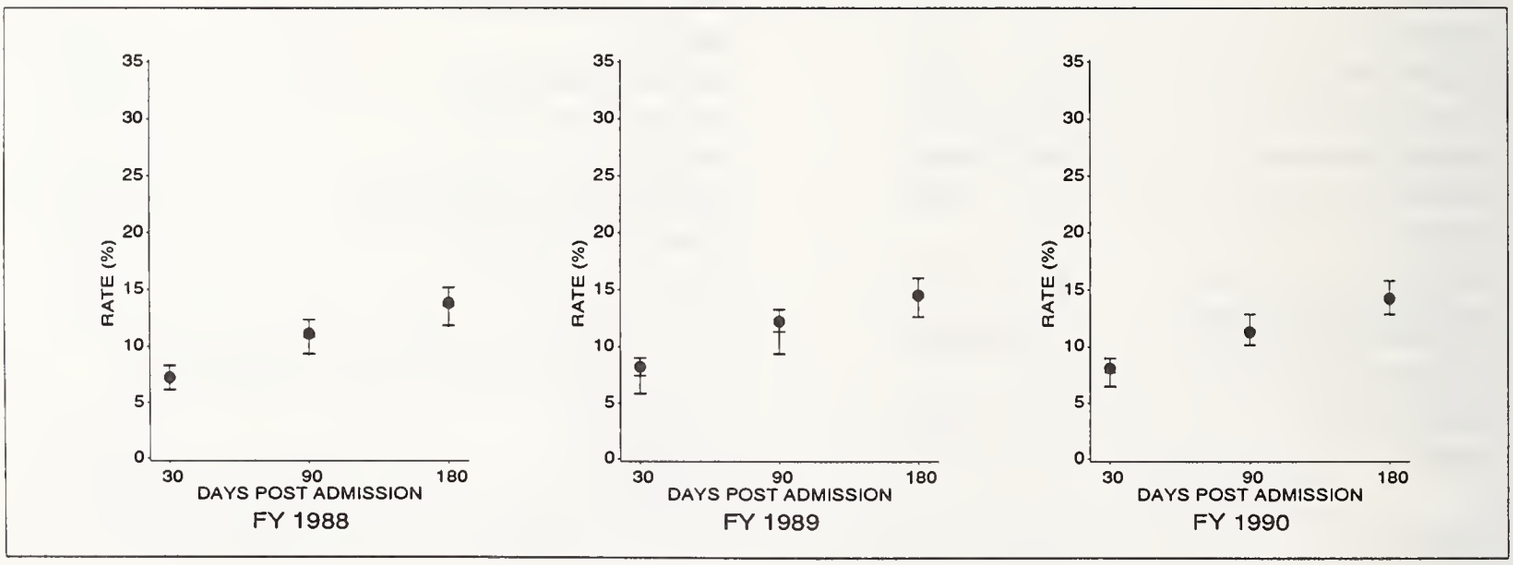
3939 HARRISON BLVD
OGDEN, UT 84402
Medicare Provider Number: 460004

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	2321	8.1	7.7	0.6	11.3	11.5	0.7	14.2	14.3	0.7
CONDITIONS:										
Acute Myocardial Infarction	108	16.7	23.5	4.9	19.4	26.5	5.1	19.4	29.2	5.8
Congestive Heart Failure	100	14.0	13.3	3.5	18.0	21.2	5.5	23.0	27.2	6.7
Pneumonia/Influenza	87	14.9	15.1	4.0	19.5	20.7	5.0	20.7	24.1	5.9
Chronic Obstructive Pulmonary Disease	15	13.3	9.9	-----	13.3	17.1	-----	26.7	22.4	-----
Transient Cerebral Ischemia	22	4.5	2.0	-----	9.1	4.2	-----	13.6	6.6	-----
Stroke	84	22.6	19.5	4.7	28.6	25.0	5.1	36.9	28.6	6.6
Hip Fracture	88	6.8	6.2	3.6	11.4	11.1	3.8	17.0	14.5	4.3
Sepsis	22	9.1	16.7	-----	13.6	23.0	-----	13.6	26.7	-----
PROCEDURES:										
Angioplasty	46	2.2	4.1	-----	2.2	5.0	-----	2.2	6.1	-----
Coronary Artery Bypass Graft	110	2.7	7.2	4.2	5.5	10.2	5.1	6.4	11.3	5.1
Initial Pacemaker Insertion	23	0.0	2.2	-----	0.0	4.6	-----	4.3	6.9	-----
Carotid Endarterectomy	14	7.1	1.4	-----	14.3	2.5	-----	14.3	3.7	-----
Hip Replacement/Reconstruction	86	3.5	2.3	2.1	4.7	4.3	2.3	5.8	5.9	2.5
Open Reduction of Hip Fracture	47	6.4	5.7	-----	12.8	10.4	-----	19.1	13.9	-----
Prostatectomy	70	0.0	0.7	1.2	1.4	1.5	1.7	4.3	2.6	2.5
Cholecystectomy	60	3.3	2.5	2.2	5.0	4.5	2.7	5.0	5.8	3.1
Hysterectomy	47	0.0	0.4	-----	0.0	1.0	-----	2.1	1.5	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



MCKAY-DEE HOSPITAL CENTER
Medicare Provider Number: 460004

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	74.5 years
Proportion female	55.2 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	53.9 %
Transferred from skilled nursing facility	0.2 %
Admitted for elective procedure	1.0 %
Admitted for emergency	37.7 %

COMORBIDITIES:

Cancer	5.6 %
Chronic cardiovascular disease	31.7 %
Chronic liver disease	0.7 %
Chronic renal disease	1.4 %
Chronic pulmonary disease	8.6 %
Cerebrovascular degeneration	2.2 %
Diabetes mellitus	7.0 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	74.3%
State	20.3%
Outside State	5.4%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	6.2 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	374
Occupancy Rate	57.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	26.4 %
Case Mix Index (CMI)	1.5807

STAFFING:

Total Number of Physicians	222
Percent of Physicians Board Certified Specialists	79.7 %
Medical Residents/Interns	0
Registered Nurses	421
Licensed Practical Nurses	54

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	Yes
Comprehensive Geriatric	Yes
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	Yes

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	Yes
Rehabilitation	Yes
Psychiatric	Yes
Medicare Swing Beds	Yes

** Except for CMI

*** Not used in calculating mortality rates**

MILFORD VALLEY MEMORIAL HOSPITAL

451 MAIN ST
MILFORD, UT 84751
Medicare Provider Number: 460025

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%) 30 DAYS OBS	30 DAYS PRED	30 DAYS SD*	90 DAYS OBS	90 DAYS PRED	90 DAYS SD*	180 DAYS OBS	180 DAYS PRED	180 DAYS SD*
ALL CAUSES	47	10.6	8.2	-----	14.9	12.0	-----	17.0	15.3	-----
CONDITIONS:										
Acute Myocardial Infarction	11	9.1	12.3	-----	18.2	15.4	-----	18.2	18.5	-----
Congestive Heart Failure	3	0.0	11.1	-----	0.0	18.8	-----	0.0	24.6	-----
Pneumonia/Influenza	9	0.0	11.3	-----	11.1	15.8	-----	11.1	19.0	-----
Chronic Obstructive Pulmonary Disease	1	100.0	3.7	-----	100.0	7.4	-----	100.0	10.1	-----
Transient Cerebral Ischemia	0									
Stroke	0									
Hip Fracture	1	0.0	3.0	-----	0.0	7.0	-----	100.0	12.2	-----
Sepsis	1	0.0	24.8	-----	0.0	29.2	-----	0.0	33.2	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	0									
Hysterectomy	0									

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES

No Graphs are presented when the standard deviation was not computed for one or more of the three fiscal years, (1988, 1989, or 1990)

MILFORD VALLEY MEMORIAL HOSPITAL

Medicare Provider Number: 460025

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	77.5 years
Proportion female	63.8 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	100.0 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	97.9 %
Admitted for emergency	2.1 %

COMORBIDITIES:

Cancer	2.1 %
Chronic cardiovascular disease	31.9 %
Chronic liver disease	0.0 %
Chronic renal disease	0.0 %
Chronic pulmonary disease	19.1 %
Cerebrovascular degeneration	6.4 %
Diabetes mellitus	8.5 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	89.2%
State	5.4%
Outside State	5.4%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	4.2 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	34
Occupancy Rate	76.0 %
Ownership/Control	Local Government
Medicare Discharges	44.9 %
Case Mix Index (CMI)	0.8826

STAFFING:

Total Number of Physicians	1
Percent of Physicians Board Certified Specialists	(Not Available)
Medical Residents/Interns	0
Registered Nurses	3
Licensed Practical Nurses	1

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

*** Not used in calculating mortality rates**

MONUMENT VALLEY HOSPITAL

ROCK DOOR CANYON, BOX 4
MONUMENT VALLEY, UT 84536
Medicare Provider Number: 460024

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	33	3.0	9.1	-----	3.0	13.9	-----	3.0	17.1	-----
CONDITIONS:										
Acute Myocardial Infarction	0									
Congestive Heart Failure	0									
Pneumonia/Influenza	10	0.0	9.7	-----	0.0	13.6	-----	0.0	16.2	-----
Chronic Obstructive Pulmonary Disease	1	0.0	9.0	-----	0.0	12.8	-----	0.0	16.6	-----
Transient Cerebral Ischemia	0									
Stroke	1	0.0	13.0	-----	0.0	15.6	-----	0.0	18.7	-----
Hip Fracture	0									
Sepsis	0									
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	0									
Hysterectomy	0									

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES

No Graphs are presented when the standard deviation
was not computed for one or more of the three fiscal years,
(1988, 1989, or 1990)

MONUMENT VALLEY HOSPITAL
Medicare Provider Number: 460024

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	74.0 years
Proportion female	51.5 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	9.1 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	0.0 %
Admitted for emergency	97.0 %

COMORBIDITIES:

Cancer	3.0 %
Chronic cardiovascular disease	9.1 %
Chronic liver disease	0.0 %
Chronic renal disease	0.0 %
Chronic pulmonary disease	21.2 %
Cerebrovascular degeneration	3.0 %
Diabetes mellitus	6.1 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	19.7%
State	0.0%
Outside State	80.3%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	7.1 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	26
Occupancy Rate	30.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	(Not Available)
Case Mix Index (CMI)	0.9891

STAFFING:

Total Number of Physicians	2
Percent of Physicians Board Certified Specialists	100.0 %
Medical Residents/Interns	0
Registered Nurses	9
Licensed Practical Nurses	7

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

** Except for CMI

* Not used in calculating mortality rates

MOUNTAINVIEW HOSPITAL

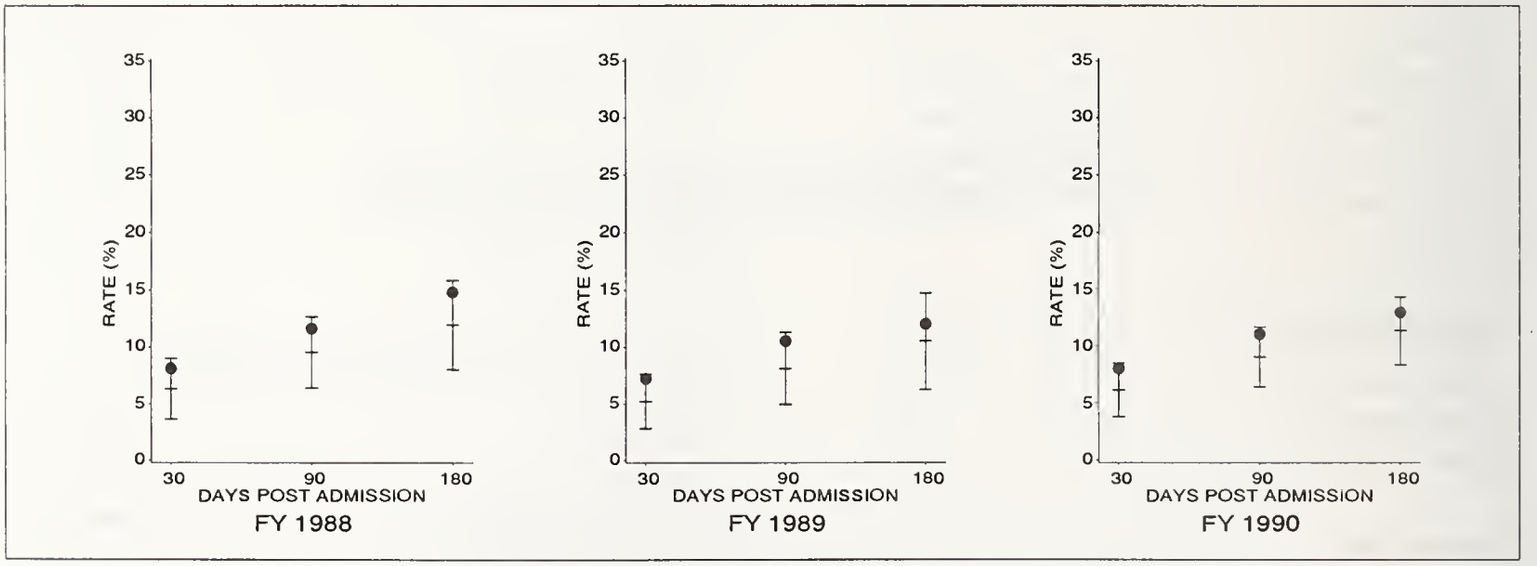
1000 E HWY 6
PAYSON, UT 84651
Medicare Provider Number: 460013

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%) 30 DAYS OBS	30 DAYS PRED	30 DAYS SD*	90 DAYS OBS	90 DAYS PRED	90 DAYS SD*	180 DAYS OBS	180 DAYS PRED	180 DAYS SD*
ALL CAUSES	774	8.1	6.2	1.2	11.1	9.1	1.3	13.0	11.4	1.5
CONDITIONS:										
Acute Myocardial Infarction	27	29.6	23.9	-----	37.0	26.8	-----	40.7	29.5	-----
Congestive Heart Failure	22	4.5	11.9	-----	13.6	18.7	-----	18.2	24.4	-----
Pneumonia/Influenza	41	17.1	13.0	-----	22.0	18.0	-----	24.4	21.5	-----
Chronic Obstructive Pulmonary Disease	3	0.0	2.4	-----	0.0	5.2	-----	0.0	7.4	-----
Transient Cerebral Ischemia	6	0.0	1.0	-----	0.0	2.3	-----	0.0	3.9	-----
Stroke	24	25.0	19.9	-----	29.2	25.5	-----	33.3	28.8	-----
Hip Fracture	37	8.1	6.3	-----	8.1	11.1	-----	8.1	14.5	-----
Sepsis	13	15.4	17.9	-----	15.4	21.4	-----	15.4	24.5	-----
PROCEDURES:										
Angioplasty	4	0.0	3.5	-----	0.0	4.3	-----	0.0	5.1	-----
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	12	8.3	2.5	-----	8.3	4.8	-----	8.3	6.8	-----
Carotid Endarterectomy	3	33.3	1.8	-----	33.3	3.3	-----	33.3	4.8	-----
Hip Replacement/Reconstruction	41	0.0	1.6	-----	0.0	2.9	-----	0.0	4.0	-----
Open Reduction of Hip Fracture	22	9.1	6.5	-----	9.1	11.8	-----	9.1	15.4	-----
Prostatectomy	35	0.0	0.5	-----	5.7	1.2	-----	5.7	1.9	-----
Cholecystectomy	35	5.7	2.7	-----	8.6	4.7	-----	8.6	6.0	-----
Hysterectomy	10	0.0	0.1	-----	0.0	0.3	-----	0.0	0.5	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



MOUNTAINVIEW HOSPITAL
Medicare Provider Number: 460013

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	74.5 years
Proportion female	56.3 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	81.5 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	31.5 %
Admitted for emergency	34.8 %

COMORBIDITIES:

Cancer	3.7 %
Chronic cardiovascular disease	38.6 %
Chronic liver disease	0.4 %
Chronic renal disease	1.3 %
Chronic pulmonary disease	8.4 %
Cerebrovascular degeneration	3.0 %
Diabetes mellitus	8.5 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	76.0%
State	21.2%
Outside State	2.8%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	6.2 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	118
Occupancy Rate	44.0 %
Ownership/Control	Private, For Profit
Medicare Discharges	22.6 %
Case Mix Index (CMI)	1.3383

STAFFING:

Total Number of Physicians	45
Percent of Physicians Board Certified Specialists	73.3 %
Medical Residents/Interns	0
Registered Nurses	97
Licensed Practical Nurses	33

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	Yes
Medicare Swing Beds	No

** Except for CMI

* Not used in calculating mortality rates

OREM COMMUNITY HOSPITAL

331 NORTH 400 WEST
OREM, UT 84057
Medicare Provider Number: 460043

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	46	2.2	4.5	-----	2.2	6.9	-----	4.3	8.5	-----
CONDITIONS:										
Acute Myocardial Infarction	1	0.0	39.7	-----	0.0	51.5	-----	0.0	57.1	-----
Congestive Heart Failure	1	0.0	15.6	-----	0.0	25.4	-----	0.0	31.2	-----
Pneumonia/Influenza	6	16.7	10.0	-----	16.7	13.5	-----	33.3	15.9	-----
Chronic Obstructive Pulmonary Disease	0									
Transient Cerebral Ischemia	1	0.0	0.7	-----	0.0	1.8	-----	0.0	2.9	-----
Stroke	0									
Hip Fracture	3	0.0	9.6	-----	0.0	15.0	-----	0.0	19.0	-----
Sepsis	0									
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	2	0.0	6.7	-----	0.0	11.3	-----	0.0	15.1	-----
Open Reduction of Hip Fracture	3	0.0	7.7	-----	0.0	12.9	-----	0.0	17.0	-----
Prostatectomy	0									
Cholecystectomy	1	0.0	0.5	-----	0.0	1.1	-----	0.0	1.4	-----
Hysterectomy	2	0.0	0.0	-----	0.0	0.1	-----	0.0	0.1	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES

No Graphs are presented when the standard deviation
was not computed for one or more of the three fiscal years,
(1988, 1989, or 1990)

OREM COMMUNITY HOSPITAL
Medicare Provider Number: 460043

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	72.7 years
Proportion female	60.9 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	60.9 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	63.0 %
Admitted for emergency	2.2 %

COMORBIDITIES:

Cancer	0.0 %
Chronic cardiovascular disease	28.3 %
Chronic liver disease	0.0 %
Chronic renal disease	2.2 %
Chronic pulmonary disease	6.5 %
Cerebrovascular degeneration	2.2 %
Diabetes mellitus	8.7 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	76.7%
State	18.3%
Outside State	5.0%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	4.2 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	20
Occupancy Rate	40.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	3.3 %
Case Mix Index (CMI)	1.2311

STAFFING:

Total Number of Physicians	65
Percent of Physicians Board Certified Specialists	73.8 %
Medical Residents/Interns	0
Registered Nurses	28
Licensed Practical Nurses	2

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	Yes

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	No

** Except for CMI

*** Not used in calculating mortality rates**

PIONEER VALLEY HOSPITAL

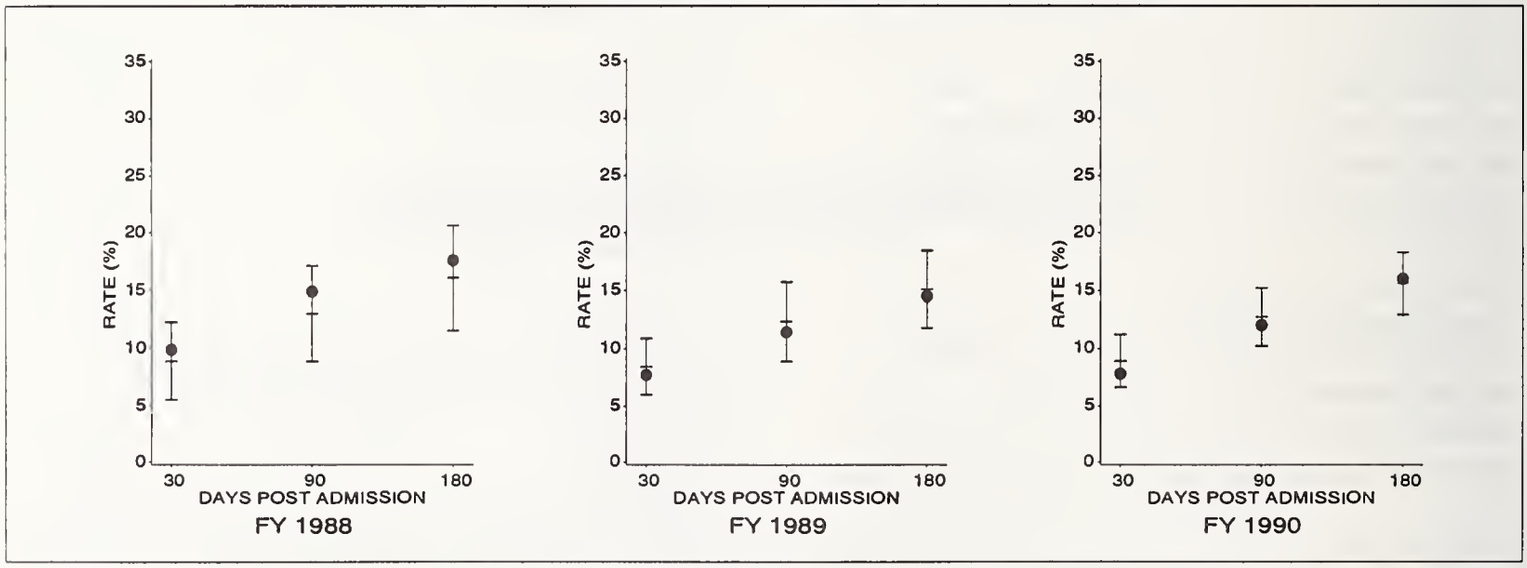
3460 SOUTH PIONEER PARKWAY
WEST VALLEY CITY, UT 84120
Medicare Provider Number: 460008

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	748	7.8	8.9	1.2	12.0	12.7	1.3	16.0	15.6	1.4
CONDITIONS:										
Acute Myocardial Infarction	22	36.4	30.6	-----	36.4	32.9	-----	40.9	35.3	-----
Congestive Heart Failure	28	3.6	11.7	-----	7.1	18.9	-----	14.3	24.1	-----
Pneumonia/Influenza	41	9.8	13.9	-----	14.6	19.3	-----	19.5	22.8	-----
Chronic Obstructive Pulmonary Disease	9	0.0	8.5	-----	0.0	14.7	-----	11.1	19.5	-----
Transient Cerebral Ischemia	6	0.0	2.6	-----	0.0	5.9	-----	16.7	9.6	-----
Stroke	27	18.5	22.1	-----	25.9	29.2	-----	29.6	33.5	-----
Hip Fracture	18	0.0	5.4	-----	0.0	9.2	-----	0.0	11.9	-----
Sepsis	14	28.6	23.7	-----	28.6	28.7	-----	42.9	32.9	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	1	0.0	1.6	-----	0.0	3.2	-----	0.0	4.8	-----
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	17	0.0	3.4	-----	5.9	6.6	-----	5.9	9.3	-----
Open Reduction of Hip Fracture	8	0.0	5.3	-----	0.0	9.4	-----	0.0	12.2	-----
Prostatectomy	16	0.0	0.4	-----	6.3	0.9	-----	12.5	1.5	-----
Cholecystectomy	34	2.9	2.4	-----	8.8	4.5	-----	8.8	6.2	-----
Hysterectomy	9	0.0	0.7	-----	0.0	1.5	-----	0.0	2.4	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



PIONEER VALLEY HOSPITAL
Medicare Provider Number: 460008

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	73.2 years
Proportion female	57.5 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	36.0 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	19.1 %
Admitted for emergency	63.6 %

COMORBIDITIES:

Cancer	4.1 %
Chronic cardiovascular disease	34.7 %
Chronic liver disease	0.8 %
Chronic renal disease	1.7 %
Chronic pulmonary disease	19.9 %
Cerebrovascular degeneration	2.9 %
Diabetes mellitus	7.6 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	89.0%
State	7.8%
Outside State	3.2%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	5.5 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	139
Occupancy Rate	38.0 %
Ownership/Control	Private, For Profit
Medicare Discharges	24.1 %
Case Mix Index (CMI)	1.2577

STAFFING:

Total Number of Physicians	70
Percent of Physicians Board Certified Specialists	75.7 %
Medical Residents/Interns	0
Registered Nurses	103
Licensed Practical Nurses	25

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	Yes
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	Yes
Medicare Swing Beds	No

** Except for CMI

*** Not used in calculating mortality rates**

SAN JUAN HOSPITAL

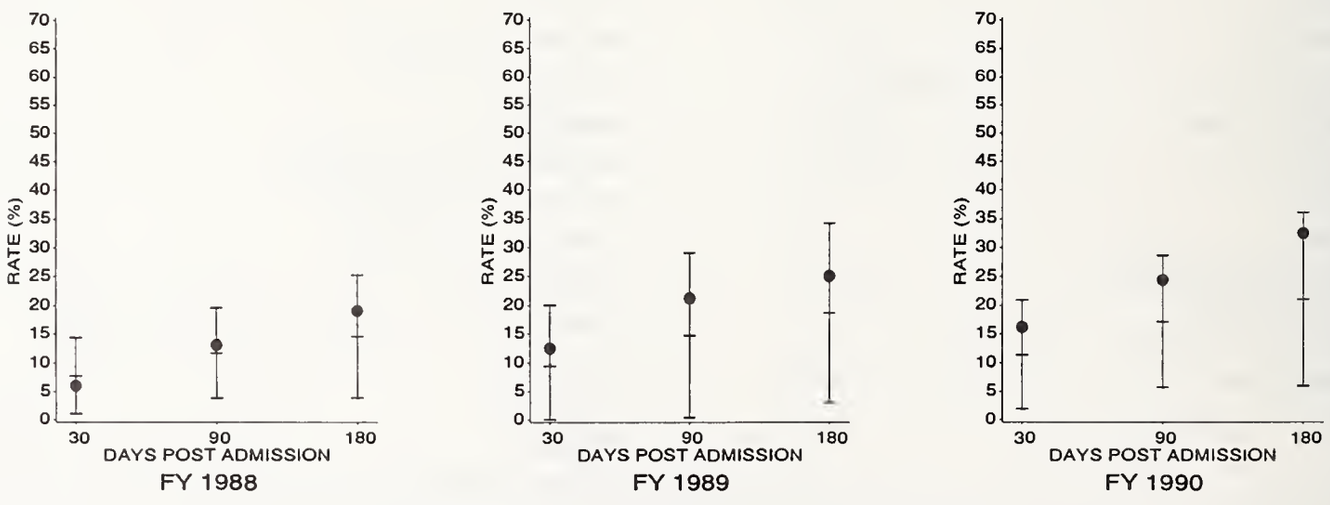
384 WEST 300 NORTH
MONTICELLO, UT 84535
Medicare Provider Number: 460020

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	74	16.2	11.4	4.8	24.3	17.1	5.7	32.4	21.0	7.5
CONDITIONS:										
Acute Myocardial Infarction	2	50.0	23.6	-----	50.0	26.8	-----	50.0	29.1	-----
Congestive Heart Failure	1	0.0	11.2	-----	0.0	17.9	-----	100.0	25.3	-----
Pneumonia/Influenza	15	13.3	11.1	-----	13.3	16.6	-----	33.3	20.4	-----
Chronic Obstructive Pulmonary Disease	1	0.0	6.1	-----	100.0	9.3	-----	100.0	12.3	-----
Transient Cerebral Ischemia	0									
Stroke	2	50.0	15.0	-----	50.0	18.5	-----	50.0	21.1	-----
Hip Fracture	0									
Sepsis	1	0.0	13.5	-----	100.0	15.6	-----	100.0	17.3	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	3	0.0	1.3	-----	0.0	2.8	-----	0.0	4.4	-----
Hysterectomy	0									

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



SAN JUAN HOSPITAL
Medicare Provider Number: 460020

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	77.4 years
Proportion female	51.4 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	94.6 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	0.0 %
Admitted for emergency	1.4 %

COMORBIDITIES:

Cancer	4.1 %
Chronic cardiovascular disease	14.9 %
Chronic liver disease	1.4 %
Chronic renal disease	1.4 %
Chronic pulmonary disease	16.2 %
Cerebrovascular degeneration	8.1 %
Diabetes mellitus	5.4 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	83.3%
State	1.9%
Outside State	14.8%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.9 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	22
Occupancy Rate	50.0 %
Ownership/Control	District/Authority
Medicare Discharges	19.3 %
Case Mix Index (CMI)	1.0179

STAFFING:

Total Number of Physicians	7
Percent of Physicians Board Certified Specialists	100.0 %
Medical Residents/Interns	0
Registered Nurses	13
Licensed Practical Nurses	10

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

** Except for CMI

*** Not used in calculating mortality rates**

SANPETE HOSPITAL

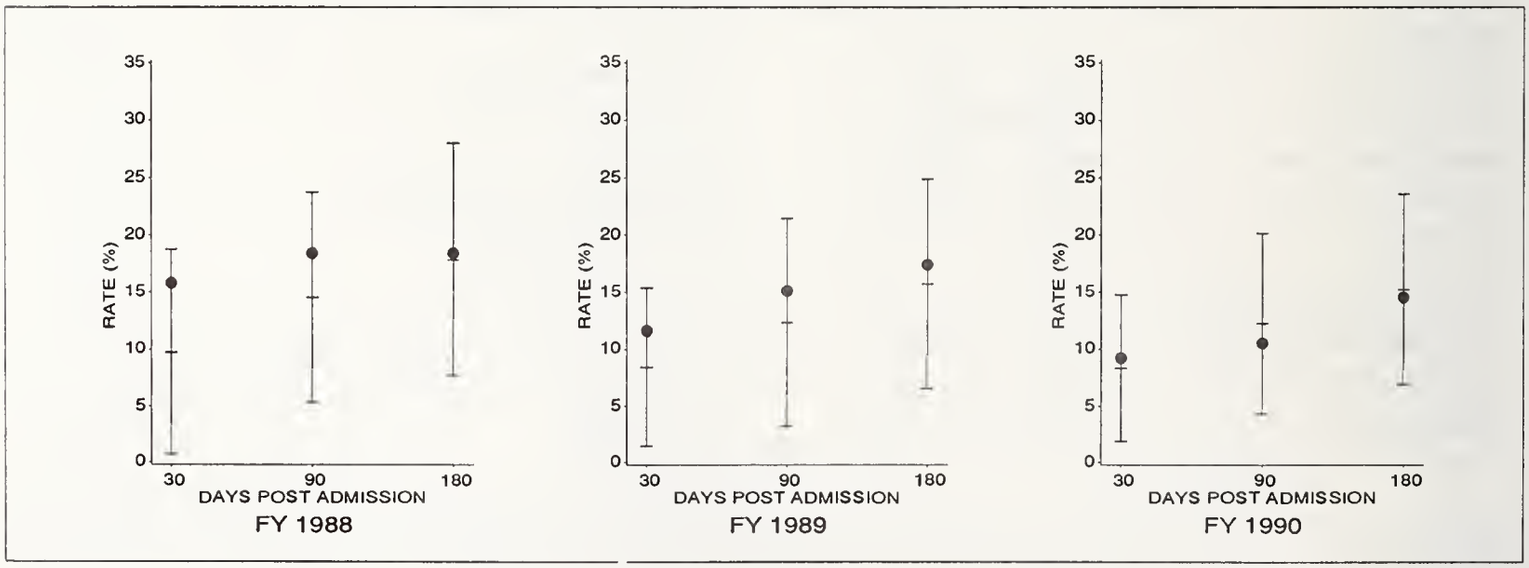
1100 S MEDICAL DR
MOUNT PLEASANT, UT 84647
Medicare Provider Number: 460029

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	76	9.2	8.3	3.2	10.5	12.2	4.0	14.5	15.2	4.2
CONDITIONS:										
Acute Myocardial Infarction	3	33.3	42.1	-----	33.3	45.8	-----	33.3	48.0	-----
Congestive Heart Failure	8	25.0	13.8	-----	25.0	21.2	-----	37.5	27.3	-----
Pneumonia/Influenza	11	9.1	12.0	-----	9.1	16.4	-----	18.2	19.2	-----
Chronic Obstructive Pulmonary Disease	3	0.0	3.4	-----	0.0	7.0	-----	0.0	10.0	-----
Transient Cerebral Ischemia	0									
Stroke	2	0.0	16.9	-----	0.0	22.5	-----	0.0	26.0	-----
Hip Fracture	0									
Sepsis	2	0.0	13.4	-----	0.0	16.7	-----	0.0	21.0	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	0									
Cholecystectomy	3	0.0	1.2	-----	0.0	2.1	-----	0.0	2.8	-----
Hysterectomy	0									

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



SANPETE HOSPITAL
Medicare Provider Number: 460029

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	75.8 years
Proportion female	61.8 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	60.5 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	0.0 %
Admitted for emergency	31.6 %

COMORBIDITIES:

Cancer	5.3 %
Chronic cardiovascular disease	44.7 %
Chronic liver disease	0.0 %
Chronic renal disease	0.0 %
Chronic pulmonary disease	15.8 %
Cerebrovascular degeneration	1.3 %
Diabetes mellitus	13.2 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	89.8%
State	8.3%
Outside State	1.9%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	4.0 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	20
Occupancy Rate	65.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	29.7 %
Case Mix Index (CMI)	0.9706

STAFFING:

Total Number of Physicians	6
Percent of Physicians Board Certified Specialists	100.0 %
Medical Residents/Interns	0
Registered Nurses	8
Licensed Practical Nurses	6

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	Yes
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

** Except for CMI

* Not used in calculating mortality rates

SEVIER VALLEY HOSPITAL

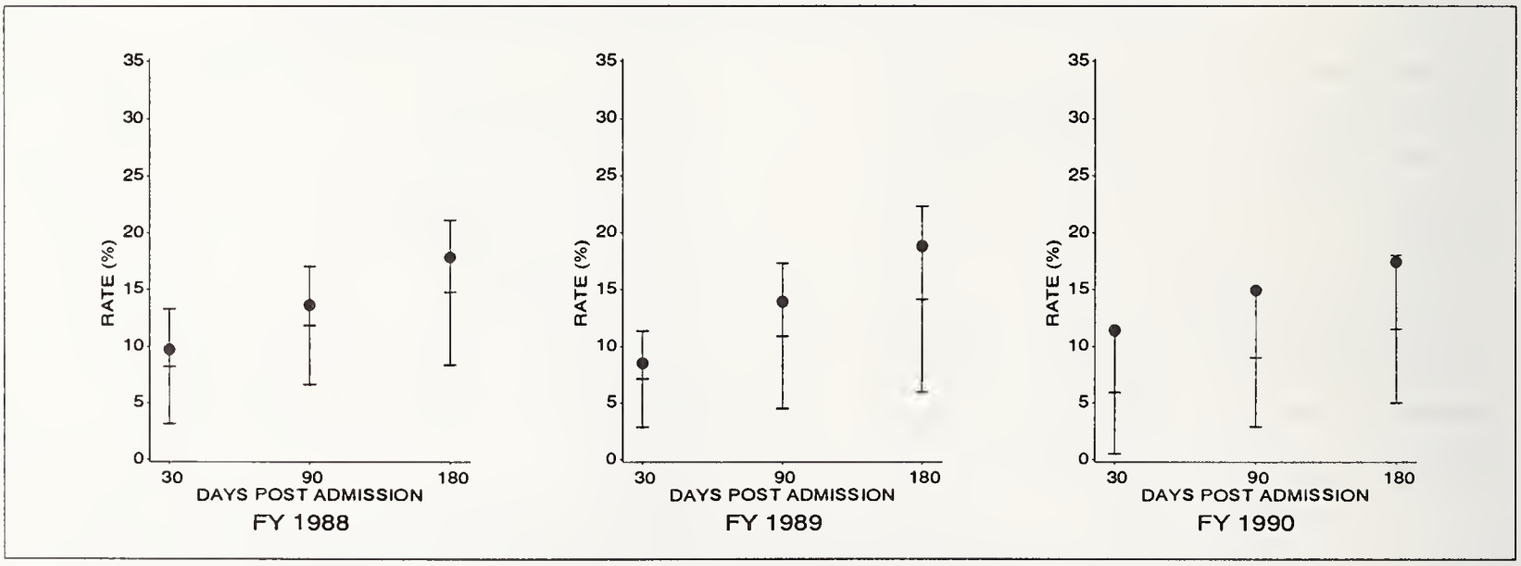
1100 N MAIN
RICHFIELD, UT 84701
Medicare Provider Number: 460026

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%) 30 DAYS OBS	30 DAYS PRED	30 DAYS SD*	90 DAYS OBS	90 DAYS PRED	90 DAYS SD*	180 DAYS OBS	180 DAYS PRED	180 DAYS SD*
ALL CAUSES	201	11.4	5.9	2.7	14.9	9.0	3.1	17.4	11.5	3.3
CONDITIONS:										
Acute Myocardial Infarction	12	33.3	18.0	-----	33.3	20.4	-----	33.3	22.8	-----
Congestive Heart Failure	11	27.3	15.3	-----	54.5	25.0	-----	54.5	30.6	-----
Pneumonia/Influenza	12	33.3	13.0	-----	33.3	18.0	-----	33.3	21.1	-----
Chronic Obstructive Pulmonary Disease	4	25.0	6.2	-----	50.0	10.8	-----	50.0	14.9	-----
Transient Cerebral Ischemia	2	0.0	2.1	-----	0.0	4.8	-----	0.0	8.3	-----
Stroke	4	50.0	18.1	-----	50.0	24.5	-----	50.0	28.7	-----
Hip Fracture	0									
Sepsis	1	0.0	18.0	-----	0.0	21.4	-----	0.0	25.6	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	6	0.0	0.4	-----	0.0	1.1	-----	0.0	2.0	-----
Cholecystectomy	2	0.0	1.9	-----	0.0	3.3	-----	0.0	4.0	-----
Hysterectomy	0									

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



SEVIER VALLEY HOSPITAL
Medicare Provider Number: 460026

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	74.4 years
Proportion female	43.8 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	40.8 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	49.3 %
Admitted for emergency	48.3 %

COMORBIDITIES:

Cancer	2.0 %
Chronic cardiovascular disease	29.4 %
Chronic liver disease	1.0 %
Chronic renal disease	3.0 %
Chronic pulmonary disease	10.9 %
Cerebrovascular degeneration	3.5 %
Diabetes mellitus	7.0 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	76.8%
State	17.5%
Outside State	5.7%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.2 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	27
Occupancy Rate	25.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	32.7 %
Case Mix Index (CMI)	0.8672

STAFFING:

Total Number of Physicians	8
Percent of Physicians Board Certified Specialists	100.0 %
Medical Residents/Interns	0
Registered Nurses	11
Licensed Practical Nurses	5

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	No

*** Not used in calculating mortality rates**

ST BENEDICTS HOSPITAL

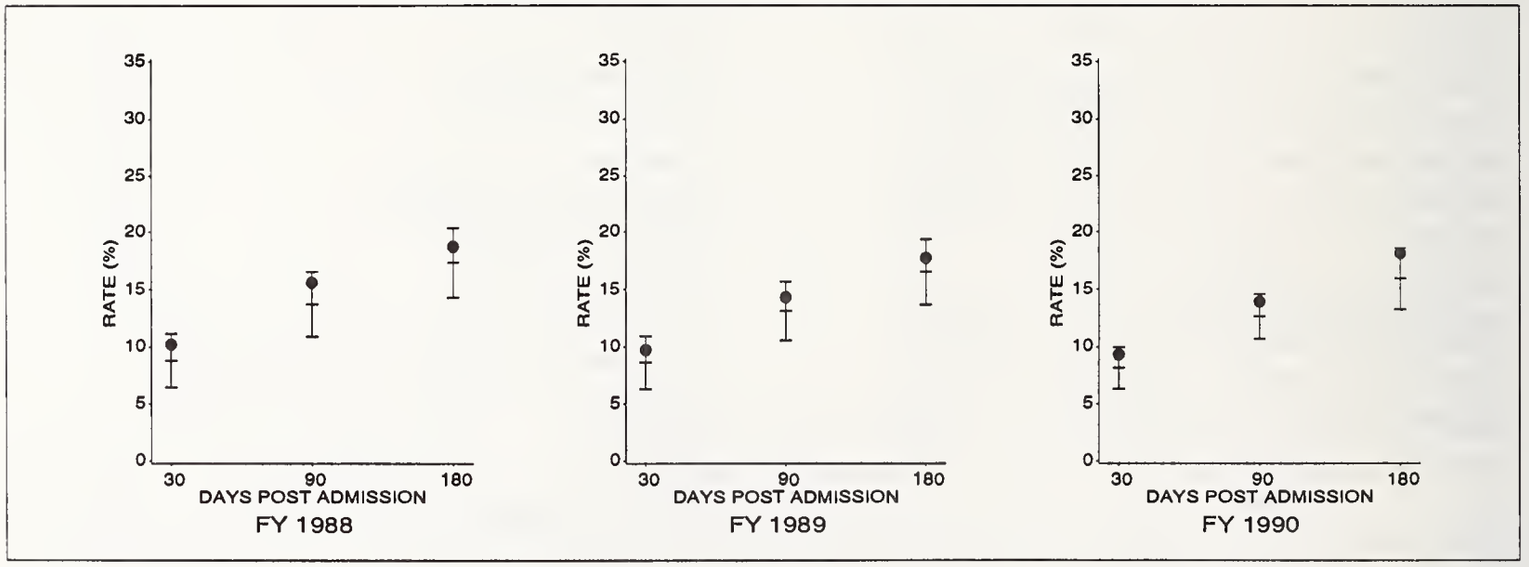
5475 ADAMS
OGDEN, UT 84403
Medicare Provider Number: 460005

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	1392	9.3	8.1	0.9	13.9	12.6	1.0	18.1	15.9	1.3
CONDITIONS:										
Acute Myocardial Infarction	39	25.6	21.8	-----	33.3	24.3	-----	38.5	26.8	-----
Congestive Heart Failure	44	4.5	13.3	-----	9.1	20.8	-----	20.5	26.8	-----
Pneumonia/Influenza	77	11.7	15.8	5.3	22.1	21.5	5.0	29.9	25.1	6.2
Chronic Obstructive Pulmonary Disease	30	3.3	8.4	-----	10.0	14.4	-----	23.3	18.6	-----
Transient Cerebral Ischemia	8	12.5	1.2	-----	12.5	2.9	-----	25.0	4.9	-----
Stroke	56	33.9	17.9	8.3	41.1	24.6	8.8	44.6	28.5	8.5
Hip Fracture	44	4.5	5.3	-----	9.1	9.6	-----	15.9	13.0	-----
Sepsis	11	45.5	18.9	-----	45.5	26.1	-----	54.5	29.9	-----
PROCEDURES:										
Angioplasty	2	0.0	5.3	-----	0.0	5.9	-----	0.0	6.8	-----
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	10	0.0	5.0	-----	0.0	9.5	-----	10.0	12.7	-----
Carotid Endarterectomy	8	12.5	1.2	-----	12.5	2.2	-----	12.5	3.1	-----
Hip Replacement/Reconstruction	31	0.0	2.4	-----	6.5	4.6	-----	6.5	6.5	-----
Open Reduction of Hip Fracture	27	3.7	4.8	-----	11.1	9.1	-----	18.5	12.5	-----
Prostatectomy	49	2.0	0.6	-----	2.0	1.3	-----	2.0	2.2	-----
Cholecystectomy	41	9.8	2.2	-----	12.2	4.3	-----	12.2	5.7	-----
Hysterectomy	17	0.0	0.6	-----	0.0	1.4	-----	0.0	2.2	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



ST BENEDICTS HOSPITAL
Medicare Provider Number: 460005

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	72.9 years
Proportion female	52.9 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	55.1 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	1.6 %
Admitted for emergency	43.6 %

COMORBIDITIES:

Cancer	7.0 %
Chronic cardiovascular disease	33.0 %
Chronic liver disease	1.8 %
Chronic renal disease	4.2 %
Chronic pulmonary disease	14.1 %
Cerebrovascular degeneration	5.5 %
Diabetes mellitus	7.8 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	74.8%
State	19.7%
Outside State	5.5%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	6.4 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	239
Occupancy Rate	49.0 %
Ownership/Control	Church
Medicare Discharges	23.6 %
Case Mix Index (CMI)	1.2815

STAFFING:

Total Number of Physicians	188
Percent of Physicians Board Certified Specialists	80.3 %
Medical Residents/Interns	0
Registered Nurses	208
Licensed Practical Nurses	51

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	Yes
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	Yes
Trauma Center	Yes

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	Yes
Rehabilitation	No
Psychiatric	Yes
Medicare Swing Beds	No

*** Not used in calculating mortality rates**

TOOELE VALLEY REGIONAL MEDICAL CENTER

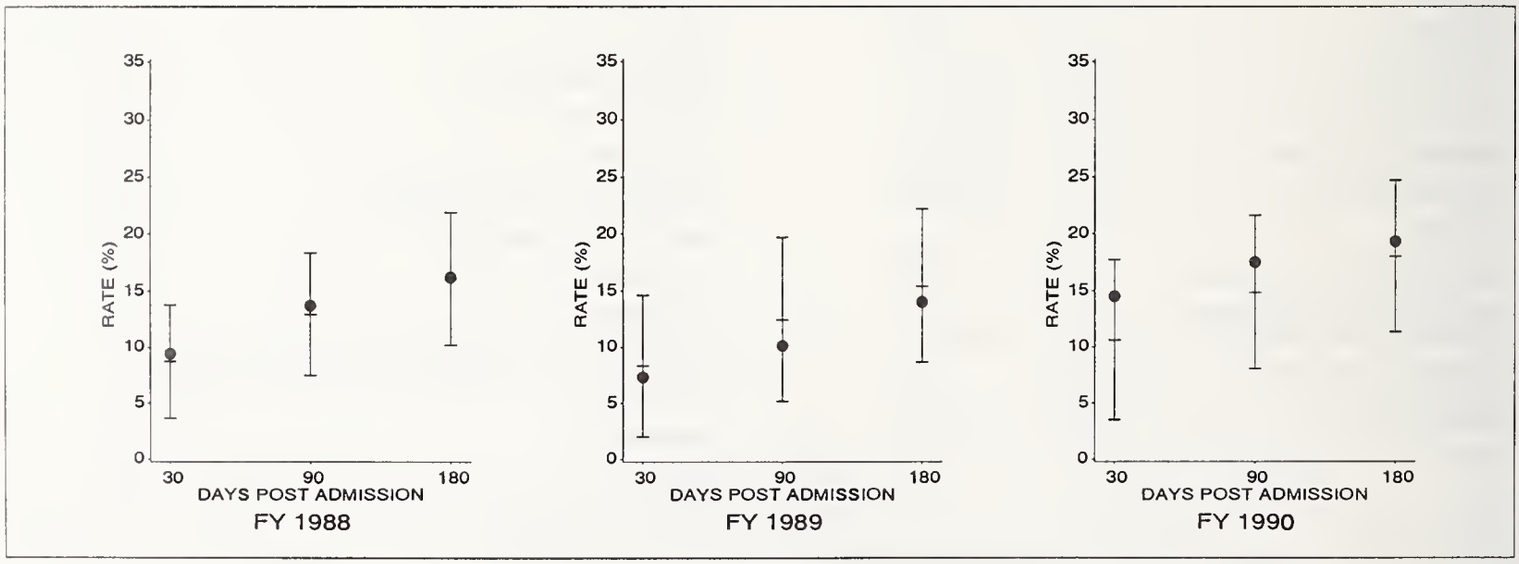
211 SOUTH 100 EAST
TOOELE, UT 84074
Medicare Provider Number: 460014

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	166	14.5	10.6	3.6	17.5	14.8	3.4	19.3	18.0	3.3
CONDITIONS:										
Acute Myocardial Infarction	7	28.6	24.0	-----	28.6	26.7	-----	28.6	29.9	-----
Congestive Heart Failure	9	22.2	13.0	-----	33.3	20.5	-----	33.3	26.5	-----
Pneumonia/Influenza	18	5.6	17.0	-----	16.7	23.4	-----	16.7	27.4	-----
Chronic Obstructive Pulmonary Disease	7	28.6	7.5	-----	28.6	12.9	-----	42.9	17.1	-----
Transient Cerebral Ischemia	1	0.0	1.3	-----	0.0	3.3	-----	0.0	5.4	-----
Stroke	1	100.0	16.4	-----	100.0	20.9	-----	100.0	23.0	-----
Hip Fracture	0									
Sepsis	2	0.0	29.6	-----	0.0	36.9	-----	0.0	40.0	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	1	100.0	26.8	-----	100.0	33.2	-----	100.0	40.0	-----
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	7	0.0	0.8	-----	0.0	1.9	-----	0.0	3.3	-----
Cholecystectomy	0									
Hysterectomy	0									

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



TOOELE VALLEY REGIONAL MEDICAL CENTER

Medicare Provider Number: 460014

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	74.9 years
Proportion female	56.0 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	25.3 %
Transferred from skilled nursing facility	4.2 %
Admitted for elective procedure	7.2 %
Admitted for emergency	42.2 %

COMORBIDITIES:

Cancer	4.8 %
Chronic cardiovascular disease	27.1 %
Chronic liver disease	0.6 %
Chronic renal disease	2.4 %
Chronic pulmonary disease	16.9 %
Cerebrovascular degeneration	4.2 %
Diabetes mellitus	9.0 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	88.4%
State	9.7%
Outside State	1.9%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.8 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: Health Care Financing Administration (OSCAR)** - Survey Year 1990

PROFILE:

Total Beds	38
Ownership/Control	Local Government
Case Mix Index (CMI)	1.0099

STAFFING:

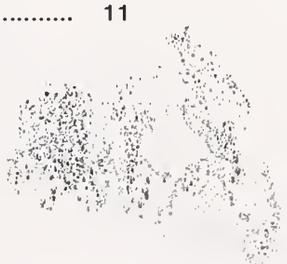
Medical Residents/Interns	0
Registered Nurses	28
Licensed Practical Nurses	11

SPECIALTY SERVICES:

Burn Unit	No
Coronary Care Unit	Yes
Hospice Care	No
Intensive Care Unit	No
Organ Transplant	Yes
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes



** Except for CMI

*** Not used in calculating mortality rates**

UNIVERSITY OF UTAH HOSPITAL

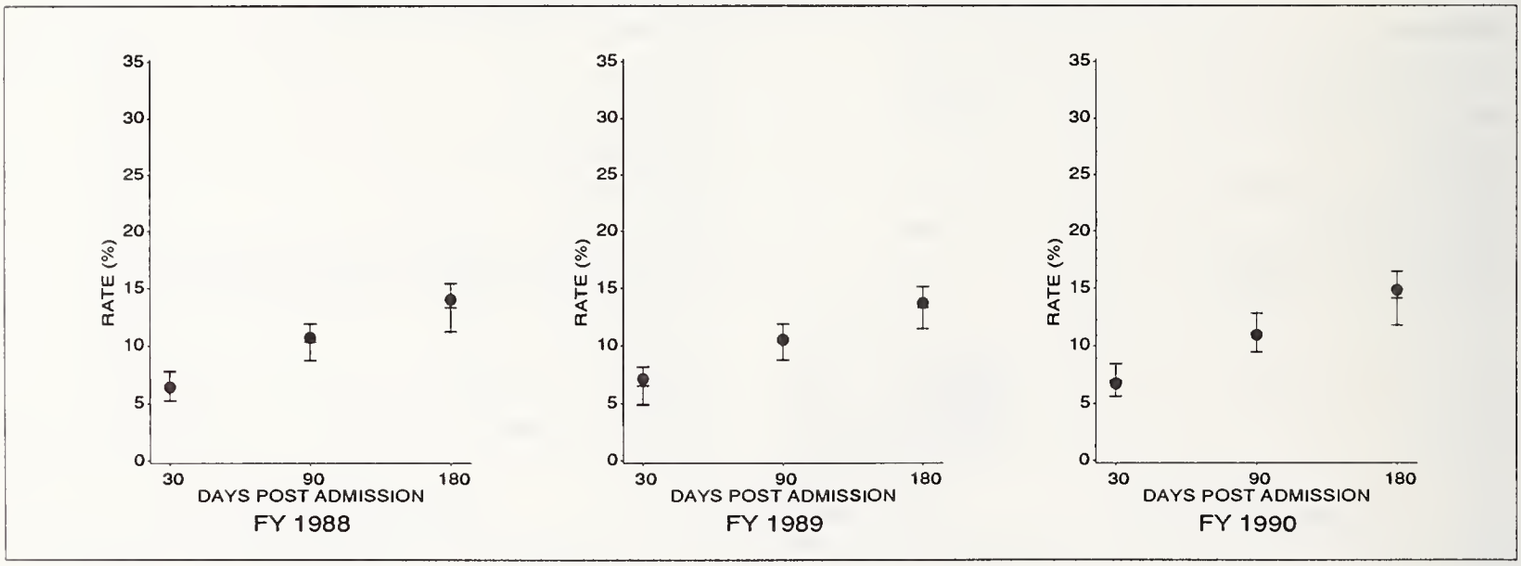
50 N MEDICAL DR
SALT LAKE CITY, UT 84123
Medicare Provider Number: 460009

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	1526	6.7	7.0	0.7	10.9	11.1	0.8	14.8	14.1	1.2
CONDITIONS:										
Acute Myocardial Infarction	34	11.8	16.9	-----	11.8	20.0	-----	14.7	22.6	-----
Congestive Heart Failure	31	16.1	14.7	-----	25.8	24.2	-----	38.7	30.3	-----
Pneumonia/Influenza	36	2.8	12.0	-----	11.1	16.4	-----	16.7	19.3	-----
Chronic Obstructive Pulmonary Disease	10	10.0	10.0	-----	10.0	17.9	-----	10.0	23.2	-----
Transient Cerebral Ischemia	11	0.0	3.2	-----	0.0	7.1	-----	0.0	10.5	-----
Stroke	30	23.3	19.8	-----	26.7	26.5	-----	30.0	30.5	-----
Hip Fracture	19	0.0	3.5	-----	0.0	6.4	-----	0.0	8.6	-----
Sepsis	6	16.7	25.4	-----	16.7	33.9	-----	16.7	39.8	-----
PROCEDURES:										
Angioplasty	13	0.0	2.2	-----	0.0	3.5	-----	0.0	4.5	-----
Coronary Artery Bypass Graft	20	5.0	3.8	-----	5.0	5.5	-----	5.0	6.4	-----
Initial Pacemaker Insertion	10	10.0	3.5	-----	10.0	7.8	-----	20.0	11.9	-----
Carotid Endarterectomy	1	0.0	0.5	-----	0.0	1.0	-----	0.0	1.6	-----
Hip Replacement/Reconstruction	75	1.3	0.9	1.3	1.3	1.9	1.8	2.7	2.8	1.9
Open Reduction of Hip Fracture	5	0.0	3.7	-----	0.0	6.7	-----	0.0	9.1	-----
Prostatectomy	34	0.0	0.6	-----	0.0	1.4	-----	2.9	2.6	-----
Cholecystectomy	22	4.5	2.1	-----	4.5	3.6	-----	4.5	4.7	-----
Hysterectomy	14	0.0	0.9	-----	0.0	2.1	-----	0.0	3.6	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



UNIVERSITY OF UTAH HOSPITAL

Medicare Provider Number: 460009

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	67.1 years
Proportion female	48.8 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	57.4 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	48.6 %
Admitted for emergency	31.8 %

COMORBIDITIES:

Cancer	8.7 %
Chronic cardiovascular disease	24.1 %
Chronic liver disease	1.1 %
Chronic renal disease	6.6 %
Chronic pulmonary disease	7.7 %
Cerebrovascular degeneration	4.0 %
Diabetes mellitus	7.5 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	47.8%
State	26.4%
Outside State	25.8%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	8.7 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	372
Occupancy Rate	82.0 %
Ownership/Control	State Government
Medicare Discharges	19.5 %
Case Mix Index (CMI)	1.7371

STAFFING:

Total Number of Physicians	430
Percent of Physicians Board Certified Specialists	(Not Available)
Medical Residents/Interns	139
Registered Nurses	583
Licensed Practical Nurses	76

SPECIALTY SERVICES:

Burn Unit	Yes
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	Yes
Other Intensive Care	Yes
Trauma Center	Yes

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	Yes
Psychiatric	Yes
Medicare Swing Beds	No

** Except for CMI

*** Not used in calculating mortality rates**

UTAH VALLEY REGIONAL MEDICAL CENTER

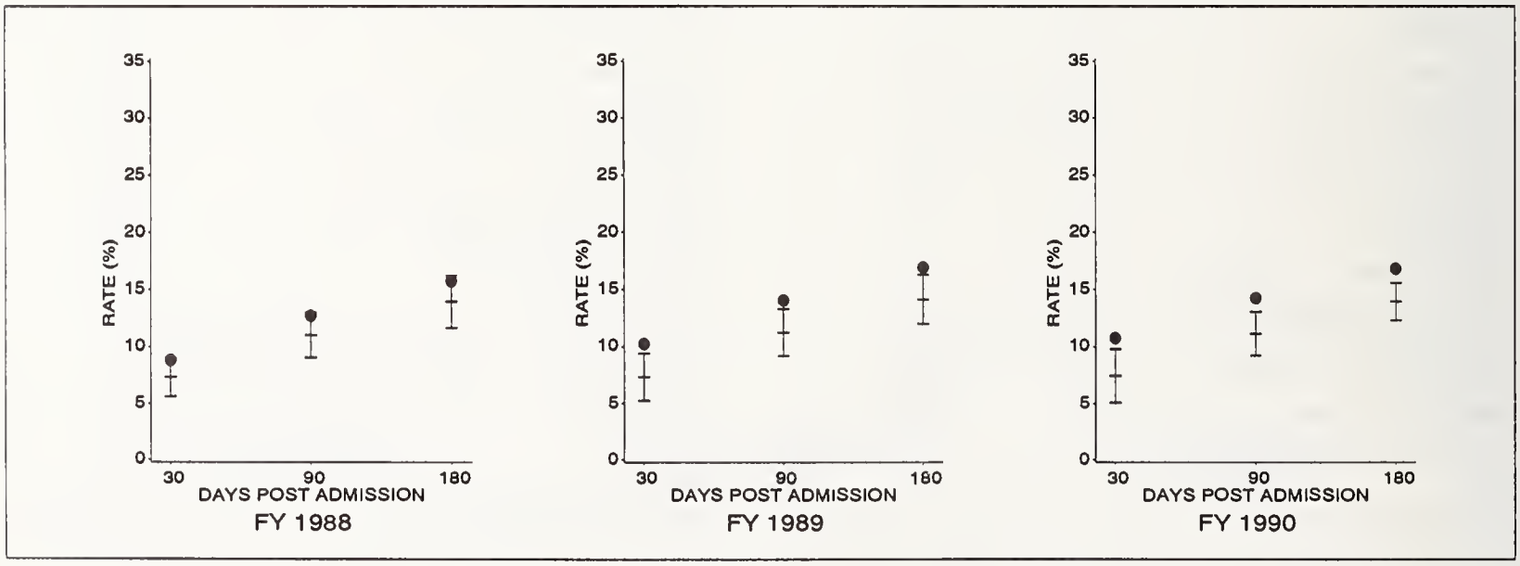
1034 NORTH 500 WEST
PROVO, UT 84604
Medicare Provider Number: 460001

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	2533	10.7	7.4	1.2	14.2	11.1	1.0	16.8	13.9	0.8
CONDITIONS:										
Acute Myocardial Infarction	102	16.7	21.0	4.7	17.6	24.0	5.5	18.6	26.9	6.3
Congestive Heart Failure	95	20.0	14.1	4.3	21.1	22.3	5.3	29.5	28.7	4.7
Pneumonia/Influenza	106	24.5	14.3	5.9	31.1	20.0	6.5	33.0	23.8	6.1
Chronic Obstructive Pulmonary Disease	35	11.4	7.7	-----	17.1	14.1	-----	20.0	19.1	-----
Transient Cerebral Ischemia	16	6.3	1.4	-----	18.8	3.4	-----	18.8	5.7	-----
Stroke	77	28.6	19.0	7.0	32.5	25.1	6.6	35.1	29.0	7.0
Hip Fracture	53	13.2	6.4	5.1	22.6	11.4	7.6	24.5	14.9	7.9
Sepsis	45	22.2	22.5	-----	24.4	30.1	-----	28.9	34.6	-----
PROCEDURES:										
Angioplasty	95	0.0	2.8	3.1	0.0	3.7	3.7	0.0	4.6	4.2
Coronary Artery Bypass Graft	93	5.4	6.9	3.0	8.6	9.4	4.7	8.6	10.4	5.1
Initial Pacemaker Insertion	48	4.2	2.4	-----	8.3	4.5	-----	8.3	6.5	-----
Carotid Endarterectomy	27	3.7	1.9	-----	3.7	3.6	-----	3.7	5.1	-----
Hip Replacement/Reconstruction	80	1.2	1.7	1.8	6.3	3.1	3.3	6.3	4.3	3.5
Open Reduction of Hip Fracture	25	20.0	5.9	-----	24.0	10.7	-----	24.0	14.1	-----
Prostatectomy	106	0.9	0.9	1.1	4.7	2.2	1.8	6.6	3.9	2.4
Cholecystectomy	94	7.4	2.5	2.7	9.6	4.3	3.2	9.6	5.6	4.0
Hysterectomy	21	4.8	0.3	-----	4.8	0.6	-----	9.5	1.1	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



UTAH VALLEY REGIONAL MEDICAL CENTER

Medicare Provider Number: 460001

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	73.8 years
Proportion female	50.8 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	50.7 %
Transferred from skilled nursing facility	0.2 %
Admitted for elective procedure	22.5 %
Admitted for emergency	0.7 %

COMORBIDITIES:

Cancer	6.6 %
Chronic cardiovascular disease	30.1 %
Chronic liver disease	0.5 %
Chronic renal disease	2.0 %
Chronic pulmonary disease	8.8 %
Cerebrovascular degeneration	3.5 %
Diabetes mellitus	7.3 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	72.9%
State	23.0%
Outside State	4.1%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	6.5 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	371
Occupancy Rate	65.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	25.1 %
Case Mix Index (CMI)	1.5510

STAFFING:

Total Number of Physicians	246
Percent of Physicians Board Certified Specialists	75.6 %
Medical Residents/Interns	0
Registered Nurses	308
Licensed Practical Nurses	132

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	Yes
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	Yes

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	Yes
Psychiatric	Yes
Medicare Swing Beds	Yes

** Except for CMI

*** Not used in calculating mortality rates**

VALLEY VIEW MEDICAL CENTER

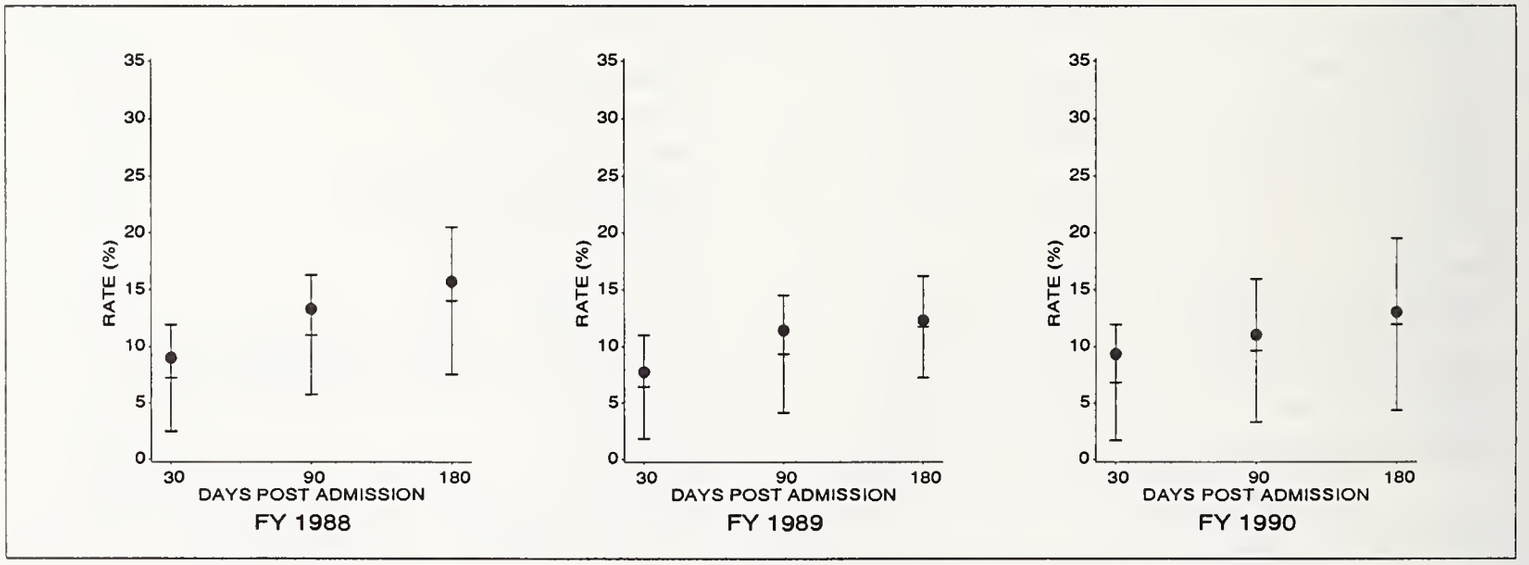
595 SOUTH 75 EAST
CEDAR CITY, UT 84720
Medicare Provider Number: 460007

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%) 30 DAYS OBS	30 DAYS PRED	30 DAYS SD*	90 DAYS OBS	90 DAYS PRED	90 DAYS SD*	180 DAYS OBS	180 DAYS PRED	180 DAYS SD*
ALL CAUSES	246	9.3	6.8	2.6	11.0	9.6	3.2	13.0	11.9	3.8
CONDITIONS:										
Acute Myocardial Infarction	8	25.0	22.5	-----	25.0	24.4	-----	25.0	26.3	-----
Congestive Heart Failure	6	0.0	9.8	-----	0.0	15.7	-----	0.0	21.2	-----
Pneumonia/Influenza	12	16.7	11.5	-----	16.7	15.9	-----	16.7	19.5	-----
Chronic Obstructive Pulmonary Disease	1	0.0	2.1	-----	0.0	4.6	-----	0.0	6.7	-----
Transient Cerebral Ischemia	1	0.0	0.7	-----	0.0	1.8	-----	0.0	3.3	-----
Stroke	9	44.4	20.8	-----	44.4	25.9	-----	44.4	29.6	-----
Hip Fracture	9	11.1	3.4	-----	22.2	6.6	-----	33.3	9.5	-----
Sepsis	3	33.3	15.6	-----	33.3	20.0	-----	33.3	23.1	-----
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	14	0.0	0.9	-----	0.0	2.0	-----	7.1	3.2	-----
Open Reduction of Hip Fracture	5	20.0	3.8	-----	40.0	7.2	-----	40.0	10.0	-----
Prostatectomy	1	0.0	0.7	-----	0.0	2.0	-----	0.0	3.8	-----
Cholecystectomy	11	9.1	1.5	-----	9.1	2.6	-----	9.1	3.4	-----
Hysterectomy	7	0.0	0.1	-----	0.0	0.4	-----	0.0	0.7	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



VALLEY VIEW MEDICAL CENTER
Medicare Provider Number: 460007

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	73.8 years
Proportion female	59.8 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	55.7 %
Transferred from skilled nursing facility	0.0 %
Admitted for elective procedure	58.9 %
Admitted for emergency	37.8 %

COMORBIDITIES:

Cancer	4.5 %
Chronic cardiovascular disease	30.9 %
Chronic liver disease	1.2 %
Chronic renal disease	0.8 %
Chronic pulmonary disease	11.4 %
Cerebrovascular degeneration	1.6 %
Diabetes mellitus	8.9 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	72.7%
State	20.5%
Outside State	6.8%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	4.1 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	48
Occupancy Rate	25.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	20.4 %
Case Mix Index (CMI)	1.2323

STAFFING:

Total Number of Physicians	17
Percent of Physicians Board Certified Specialists	82.4 %
Medical Residents/Interns	0
Registered Nurses	34
Licensed Practical Nurses	2

** Except for CMI

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	No
Hospice Care	No
Medical/Surgical Intensive Care	Yes
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

*** Not used in calculating mortality rates**

WASATCH COUNTY HOSPITAL

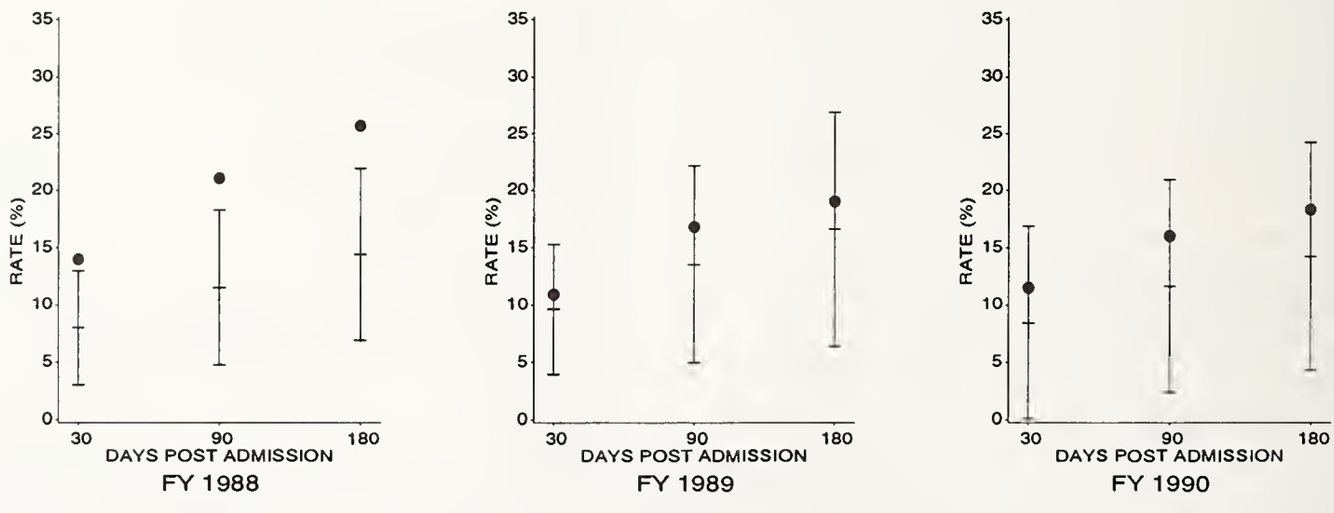
55 SOUTH 500 EAST
HEBER CITY, UT 84032
Medicare Provider Number: 460036

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	131	11.5	8.4	4.2	16.0	11.6	4.7	18.3	14.2	5.0
CONDITIONS:										
Acute Myocardial Infarction	12	41.7	30.2	-----	41.7	32.8	-----	50.0	35.0	-----
Congestive Heart Failure	8	12.5	12.5	-----	25.0	20.1	-----	25.0	25.7	-----
Pneumonia/Influenza	7	28.6	14.2	-----	28.6	18.9	-----	28.6	22.3	-----
Chronic Obstructive Pulmonary Disease	2	50.0	12.3	-----	50.0	19.4	-----	50.0	24.3	-----
Transient Cerebral Ischemia	1	0.0	0.9	-----	0.0	2.1	-----	0.0	3.3	-----
Stroke	3	33.3	11.8	-----	33.3	16.1	-----	33.3	19.2	-----
Hip Fracture	0									
Sepsis	0									
PROCEDURES:										
Angioplasty	0									
Coronary Artery Bypass Graft	0									
Initial Pacemaker Insertion	0									
Carotid Endarterectomy	0									
Hip Replacement/Reconstruction	0									
Open Reduction of Hip Fracture	0									
Prostatectomy	3	0.0	0.5	-----	0.0	1.1	-----	0.0	2.0	-----
Cholecystectomy	2	0.0	1.0	-----	0.0	1.6	-----	0.0	2.3	-----
Hysterectomy	1	0.0	0.0	-----	0.0	0.1	-----	0.0	0.2	-----

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

OBSERVED MORTALITY RATE (•) AND PREDICTED RANGE (± 2 SD) FOR MEDICARE PATIENT ADMISSIONS FOR ALL CAUSES



WASATCH COUNTY HOSPITAL

Medicare Provider Number: 460036

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	75.4 years
Proportion female	55.0 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	47.3 %
Transferred from skilled nursing facility	0.8 %
Admitted for elective procedure	61.1 %
Admitted for emergency	25.2 %

COMORBIDITIES:

Cancer	4.6 %
Chronic cardiovascular disease	17.6 %
Chronic liver disease	0.0 %
Chronic renal disease	0.8 %
Chronic pulmonary disease	5.3 %
Cerebrovascular degeneration	1.5 %
Diabetes mellitus	5.3 %

ORIGIN AND LENGTH OF STAY OF MEDICARE ADMISSIONS*

ORIGIN OF MEDICARE PATIENT ADMISSION:

County/City	70.4%
State	27.3%
Outside State	2.3%
Total	100.0%

MEDICARE AVERAGE LENGTH OF STAY:

Hospital	3.7 Days
State	6.0 Days
National	8.6 Days

HOSPITAL CHARACTERISTICS*

SOURCE: AHA Annual Survey of Hospitals** - Survey Year 1990

PROFILE:

Total Beds	25
Occupancy Rate	28.0 %
Ownership.Control	Private, Non-Profit
Medicare Discharges	9.6 %
Case Mix Index (CMI)	0.9342

STAFFING:

Total Number of Physicians	7
Percent of Physicians Board Certified Specialists	100.0 %
Medical Residents/Interns	0
Registered Nurses	13
Licensed Practical Nurses	4

SPECIALTY SERVICES:

Burn Unit	No
Cardiac Intensive Care	No
Comprehensive Geriatric	Yes
Hospice Care	No
Medical/Surgical Intensive Care	No
Organ/Tissue Transplant	No
Other Intensive Care	No
Trauma Center	No

OTHER SPECIALTY/HOSPITAL-BASED SERVICES:

Alcohol/Drug	No
Rehabilitation	No
Psychiatric	No
Medicare Swing Beds	Yes

** Except for CMI

*** Not used in calculating mortality rates**

UTAH

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	27,546	8.6	7.4	0.2	12.3	11.1	0.4	15.4	13.9	0.5
CONDITIONS:										
Acute Myocardial Infarction	1,054	20.1	22.5	1.5	22.5	25.4	1.7	25.0	28.0	1.8
Congestive Heart Failure	1,002	15.4	13.3	1.5	22.1	21.2	1.5	29.6	27.2	1.9
Pneumonia/Influenza	1,434	12.3	13.4	1.5	18.1	18.5	1.4	22.2	21.9	1.4
Chronic Obstructive Pulmonary Disease	285	9.8	7.5	1.8	13.7	13.2	2.3	21.1	17.6	2.7
Transient Cerebral Ischemia	195	4.6	2.1	1.7	8.7	4.5	2.8	11.8	7.1	3.0
Stroke	930	24.8	19.2	1.9	30.0	25.0	1.9	33.8	28.7	2.0
Hip Fracture	815	6.4	5.6	1.0	13.9	10.0	1.6	18.2	13.2	1.7
Sepsis	305	20.7	20.3	2.5	22.6	26.7	3.0	28.5	30.9	3.3
PROCEDURES:										
Angioplasty	352	2.6	3.0	1.0	2.8	3.9	1.3	3.1	4.8	1.6
Coronary Artery Bypass Graft	586	3.6	5.1	1.3	5.3	7.2	1.8	6.0	8.1	1.9
Initial Pacemaker Insertion	226	2.7	3.0	1.2	4.4	5.5	2.2	6.6	7.8	3.1
Carotid Endarterectomy	127	6.3	1.5	2.3	7.9	2.8	2.5	7.9	4.2	2.3
Hip Replacement/Reconstruction	978	1.7	2.1	0.6	4.5	3.9	0.8	5.7	5.4	1.3
Open Reduction of Hip Fracture	408	7.6	5.3	1.3	15.4	9.5	2.4	19.9	12.8	2.7
Prostatectomy	1,207	0.7	0.7	0.4	1.9	1.7	0.6	3.5	2.9	0.7
Cholecystectomy	923	4.1	2.2	0.9	6.2	4.0	1.0	7.2	5.4	1.0
Hysterectomy	401	0.2	0.4	0.3	0.5	1.0	0.5	1.0	1.6	0.7

* The Standard Deviation (SD) is not calculated if the number of deaths or cases is too small for satisfactory estimation.

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	73.7 years
Proportion female	53.3 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	60.6 %
Transferred from skilled nursing facility	0.2 %
Admitted for elective procedure	37.8 %
Admitted for emergency	22.0 %

COMORBIDITIES:

Cancer	5.8 %
Chronic cardiovascular disease	33.9 %
Chronic liver disease	0.8 %
Chronic renal disease	2.7 %
Chronic pulmonary disease	10.6 %
Cerebrovascular degeneration	2.9 %
Diabetes mellitus	7.5 %

ALL STATES

FY 1990 MEDICARE HOSPITAL MORTALITY RATES

CATEGORY	NUMBER OF CASES	MORTALITY RATES (%)								
		30 DAYS			90 DAYS			180 DAYS		
		OBS	PRED	SD*	OBS	PRED	SD*	OBS	PRED	SD*
ALL CAUSES	6,542,299	9.0	9.0	-----	13.9	13.7	-----	17.3	17.1	-----
CONDITIONS:										
Acute Myocardial Infarction	204,673	25.3	25.6	-----	29.5	28.7	-----	32.1	31.4	-----
Congestive Heart Failure	335,426	14.3	14.4	-----	22.9	22.8	-----	29.2	29.0	-----
Pneumonia/Influenza	313,303	15.3	15.5	-----	21.5	21.3	-----	25.5	25.1	-----
Chronic Obstructive Pulmonary Disease	107,387	8.0	8.0	-----	14.1	14.0	-----	18.7	18.5	-----
Transient Cerebral Ischemia	96,866	1.8	1.8	-----	4.0	4.0	-----	6.4	6.5	-----
Stroke	241,803	19.7	19.8	-----	26.5	26.3	-----	30.4	30.0	-----
Hip Fracture	163,386	6.7	6.5	-----	11.7	11.5	-----	15.1	15.0	-----
Sepsis	80,999	25.6	25.7	-----	34.6	33.8	-----	39.8	38.6	-----
PROCEDURES:										
Angioplasty	58,026	3.0	3.0	-----	4.0	4.0	-----	5.0	4.9	-----
Coronary Artery Bypass Graft	80,798	6.0	5.7	-----	8.3	8.1	-----	9.5	9.2	-----
Initial Pacemaker Insertion	49,642	3.2	3.3	-----	6.5	6.3	-----	9.1	9.1	-----
Carotid Endarterectomy	29,990	1.6	1.5	-----	2.8	2.8	-----	4.0	4.1	-----
Hip Replacement/Reconstruction	122,156	3.4	3.2	-----	6.2	5.9	-----	8.1	8.0	-----
Open Reduction of Hip Fracture	80,075	6.1	6.0	-----	11.2	11.0	-----	14.5	14.5	-----
Prostatectomy	211,087	0.9	1.0	-----	2.2	2.3	-----	3.7	3.8	-----
Cholecystectomy	124,259	2.9	2.7	-----	5.0	4.9	-----	6.5	6.5	-----
Hysterectomy	53,905	0.7	0.7	-----	1.4	1.5	-----	2.2	2.4	-----

* The Standard Deviation (SD) is not calculated.

FY1990 VALUES FOR SELECTED EXPLANATORY FACTORS USED TO PREDICT MORTALITY RATES

DEMOGRAPHICS:

Average age at admission	74.1 years
Proportion female	55.9 %

ADMISSION SOURCES/TYPES:

Referred by personal or HMO physician	46.1 %
Transferred from skilled nursing facility	1.1 %
Admitted for elective procedure	22.0 %
Admitted for emergency	46.5 %

COMORBIDITIES:

Cancer	7.6 %
Chronic cardiovascular disease	36.6 %
Chronic liver disease	1.0 %
Chronic renal disease	3.4 %
Chronic pulmonary disease	15.0 %
Cerebrovascular degeneration	3.9 %
Diabetes mellitus	8.0 %

Hospital Comments

COTTONWOOD HOSPITAL
ALTA VIEW HOSPITAL
LDS HOSPITAL

GARY WM. FARNES, CHIEF EXECUTIVE OFFICER

March 17, 1992

Cottonwood Hospital
Douglas R. Fonnesbeck
Administrator/Chief Operating Officer
5770 South 300 East
Murray, Utah 84107
(801) 262-3461

Provider #: 460044 (Alta View) ✓
Provider #: 460006 (Cottonwood)

March 16, 1992

Gail R. Wilensky, Ph.D., Administrator HCFA
Medicare Hospital Information
Bureau of Data Management and Strategy
Room 3-A-12, Security Office Park Building
6325 Security Boulevard
Baltimore, Maryland 21207-5187
ATTN: Robert Moore

Dear Dr. Wilensky,

I received the 1990 HCFA Mortality Summary and HCFA's recent improvements for Alta View and Cottonwood hospitals since I administer them both.

Accuracy of UB-82 data: In 1991, independent of the HCFA data release, we launched an improvement project to increase the accuracy of the data such as "admit type and source" that HCFA subsequently uses to predict mortality. Our initial findings indicate that data entry errors are not uncommon. In addition we are aware that corrections submitted to HCFA are not included in your analysis. For example, Emergency admissions of Medicare patients are similar at the Cottonwood and Alta View hospitals. However, your data indicate that at Alta View 0.0% were "admitted for emergency" while at Cottonwood 46.3% were "admitted for emergency".

Comments on HCFA's Methods: 1. <u>Outliers:</u> After reviewing your formula for calculating average age at admission, we concluded that HCFA's methods do not include a way to eliminate "outlier" cases (cases that cause populations to be non-homogeneous). Elimination of various "outliers" would improve the precision of HCFA's prediction model. 2. <u>Sample Size:</u> We deduced that in general, the HCFA Mortality Rates appear to have some usefulness for a medium sized facility such as Cottonwood (sample sizes allow for standard deviation calculation) but they have little relevance or meaning for small hospitals such as Alta View. None of the "conditions or procedures" at Alta View had a large enough sample size to calculate standard deviation. We recommend that different methodology be developed and applied based on hospital size. 3. <u>Useless Procedure Rates:</u> It appears to be meaningless to calculate "procedure" rates for small hospitals, "conditions" with an N over 50 would be more meaningful for us.

Provider #: 460044 (Alta View)
Provider #: 460006 (Cottonwood)

Cottonwood and Alta View Hospitals Analysis: While hospital to hospital comparisons may be inappropriate because different populations are served, we can't help but make and comment on some obvious comparisons with our sister facility the LDS Hospital. Alta View and Cottonwood are primary care facilities with case-mix indices of 1.3371 and 1.2005 respectively, with few intensive care services, and predicted mortality rates of 14.0 and 14.2% at 180 days. The LDS Hospital provides tertiary care, has many intensive care services and a case-mix index of 1.9546 and yet their predicted mortality rate at 180 days is 11.9%. These comparisons cause us to suspect the accuracy and meaning of the data.

Sincerely,

Douglas R. Fonnesbeck, Administrator,
Cottonwood and Alta View Hospitals

0445.df

BEAR RIVER
VALLEY HOSPITAL

440 West 600 North
Tremonton, Utah 84337 / 801-257-7441
Robert F. Jex, Administrator

Gail R. Wilensky, Ph.D, Administrtor
Health Care Financing Administration
Medicare Hospital Information
Bureau of Data Management and Strategy
Room 3-A-12, Security Office Park Building
6325 Security Boulevard
Baltimore, Maryland 21207-5187
Attn: Robert Moore

Medicare # 46-0039

Dear Dr. Wilensky,

I have received and reviewed the 1990 Medicare Mortality Data from your office. In general, I congratulate you on the change in format and the additional data presented. I do have the following comments relative to the data specific to Bear River Valley Hospital:

The sample size of the data is very small--too small for the type of analysis intended with your model. In most instances the number is one. There is no statistical valid way of measuring those cases for inference to a total population. We wish, in this instance, that we were a larger facility so that we could measure those parameters better.

The role and mission of Bear River Valley Hospital is to provide acute primary care to the residents of our community. In keeping with that primary care role, we transfer more seriously ill patients to larger facilities. Those too ill and unstable to transfer are admitted for stabilization and treatment. The mortality and morbidity of those patients is increased by that practice and will have a tendency to increase the percentage of patients dying from those illnesses. I think that you will find that this is the case with most small, rural facilities.

Should you have any questions concerning our data, please feel free to contact me.

Sincerely,

Robert F. Jex

Robert F. Jex, R.N., M.S., M.H.A
Administrator

COTTONWOOD HOSPITAL
ALTA VIEW HOSPITAL
LDS HOSPITAL

GARY WM. FARNES, CHIEF EXECUTIVE OFFICER

Cottonwood Hospital
Douglas R. Fonnesbeck
Administrator/Chief Operating Officer
5770 South 300 East
Murray, Utah 84107
(801) 262-3461

March 17, 1992

Provider #: 460044 (Alta View)
Provider #: 460006 (Cottonwood) ✓

March 16, 1992

Gail R. Wilensky, Ph.D., Administrator HCFA
Medicare Hospital Information
Bureau of Data Management and Strategy
Room 3-A-12, Security Office Park Building
6325 Security Boulevard
Baltimore, Maryland 21207-5187
ATTN: Robert Moore

Dear Dr. Wilensky,

I received the 1990 HCFA Mortality Summary and HCFA's recent improvements for Alta View and Cottonwood hospitals since I administer them both.

Accuracy of UB-82 data: In 1991, independent of the HCFA data release, we launched an improvement project to increase the accuracy of the data such as "admit type and source" that HCFA subsequently uses to predict mortality. Our initial findings indicate that data entry errors are not uncommon. In addition we are aware that corrections submitted to HCFA are not included in your analysis. For example, Emergency admissions of Medicare patients are similar at the Cottonwood and Alta View hospitals. However, your data indicate that at Alta View 0.0% were "admitted for emergency" while at Cottonwood 46.3% were "admitted for emergency".

Comments on HCFA's Methods: 1. Outliers: After reviewing your formula for calculating average age at admission, we concluded that HCFA's methods do not include a way to eliminate "outlier" cases (cases that cause populations to be non-homogeneous). Elimination of various "outliers" would improve the precision of HCFA's prediction model. 2. Sample Size: We deduced that in general, the HCFA Mortality Rates appear to have some usefulness for a medium sized facility such as Cottonwood (sample sizes allow for standard deviation calculation) but they have little relevance or meaning for small hospitals such as Alta View. None of the "conditions or procedures" at Alta View had a large enough sample size to calculate standard deviation. We recommend that different methodology be developed and applied based on hospital size. 3. Useless Procedure Rates: It appears to be meaningless to calculate "procedure" rates for small hospitals, "conditions" with an N over 50 would be more meaningful for us.

Provider #: 460044 (Alta View)
Provider #: 460006 (Cottonwood)

Cottonwood and Alta View Hospitals Analysis: While hospital to hospital comparisons may be inappropriate because different populations are served, we can't help but make and comment on some obvious comparisons with our sister facility the LDS Hospital. Alta View and Cottonwood are primary care facilities with case-mix indices of 1.3371 and 1.2005 respectively, with few intensive care services, and predicted mortality rates of 14.0 and 14.2% at 180 days. The LDS Hospital provides tertiary care, has many intensive care services and a case-mix index of 1.9546 and yet their predicted mortality rate at 180 days is 11.9%. These comparisons cause us to suspect the accuracy and meaning of the data.

Sincerely,

Douglas R. Fonnesbeck, Administrator,
Cottonwood and Alta View Hospitals

0445.df

Holy Cross Hospital

M/C 460003

March 19, 1992

Gail R. Wilensky, Ph.D., Administrator
Health Care Financing Administration
Medicare Hospital Information
Bureau of Data Management and Strategy
Room 3-A-12, Security Office Park Bldg.
6325 Security Boulevard
Baltimore, Maryland 21207-5187
Attn: Robert Moore

Dear Mr. Moore:

The comparison of crude mortality rates across hospitals as a single indicator of quality without adjustments for differences in patient mix and severity continues to mislead consumers and to leave hospitals questioning the validity and design of HCFA's complex and difficult to interpret annual Medicare Hospital Information report.

While the published mortality data attributes responsibility to hospitals for both in-hospital and out-of-hospital deaths (hospitals are held responsible for deaths that may occur up to 180 days after an admission), it does not account for factors that may influence patient survival, such as comorbidities, the natural history of a disease process, patient compliance and discharge disposition. Furthermore, the study design does not make it easy for hospitals to verify whether an admission and subsequent out-of-hospital death were related.

Significant data discrepancies were noted in the 1990 mortality information reported to Holy Cross Hospital this year. Approximately 99 of the reported out-of-hospital deaths occurred outside the 180 days (post admission) limit set by HCFA's study parameters and were calculated into our hospital's mortality rate. Several of these same cases (98) showed the out-of-hospital death occurred in 1991 (outside of the HCFA FY 1990 reporting period) leading us to question whether these same deaths will be double-counted in the HCFA 1991 mortality report. Actual skilled nursing home transfers (SNF) in FY 1990 to Holy Cross Hospital and to Holy Cross Jordan

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Valley Hospital were 142 (6%) cases as opposed to HCFA's reported 0. Our published mortality rates also note a combined report for both Holy Cross Hospital and Holy Cross Jordan Valley Hospital (i.e. our two facilities share a common Medicare I.D. number).

This is a brief summary of our concerns regarding the usefulness of this data. We do, however, appreciate the opportunity to review the information and respond to it prior to its publication.

Sincerely,

Dale Austin
Acting President
Holy Cross Hospital
1050 East South Temple
Salt Lake City, UT 84102

LAKEVIEW
HOSPITAL

Lakeview Hospital
Medicare Provider No.: 460042

March 16, 1992

Gail R. Wilensky, Ph.D., Administrator
Health Care Financing Administration
Medicare Hospital Information
Bureau of Data Management and Strategy
Room 3-A-12, Security Office Park Building
6355 Security Boulevard
Baltimore, Maryland 21207-5187

Attn: Robert Moore

Dear Ms. Wilensky:

We appreciate the opportunity to comment on the data presented in the 1990 Medicare Hospital Mortality report. We have reviewed the data you have distributed and offer the following comments for cases in which death occurred within 30 days following discharge.

1. The number of cases in all categories except "All Causes" are too few to calculate the standard deviation. It is noted that the percentage of deaths observed is slightly higher than the predicted in the "All Causes" category at 30, 90 and 180 days. In all three categories the observed are within the +/- 2 S.D.

2. Under the "Conditions" classification, the percentage of observed cases are less than the predicted, except in the stroke category. This facility had a 23.8% mortality rate for stroke cases when the predicted rate was 23.3%. The average age of these patients was 72.8 years and 66% of these patients had DNR orders written. Co-morbid conditions existed among these patients 66% of the time and included sepsis, cardiac disease and pneumonia.

3. Under the "Procedures" classification, the percentage of observed cases are lower than the predicted except in the "Open Reduction of Hip Fracture" and "Cholecystectomy" categories.

   a. This facility had a 6.7% mortality rate for open reductions for hip fractures when the predicted percentage was 5.7%. There were only 2 cases which fell into this category. The average age of the patients in this category was 95 years. Sepsis was attributed as the cause of death in one of these patients.

   b. This facility had a 10.5% mortality rate for cholecystectomy when the predicted percentage was 3.8%. There were 5 cases falling into this category and the average age of these 5 patients was 81.6 years. Metastatic cancer was the cause of death in 40% of these patients. The other 3 cases were complicated by other co-existing conditions such as a ruptured abdominal aortic aneurism and acute renal failure.

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4. Numerous cases were not classified under a particular condition or procedure code at the 30 day time frame. Of these cases, 14% died of cancer, 39% died of an acute myocardial infarction and 12% suffered from gastrointestinal hemorrhage, ruptured abdominal aortic aneurism or bowel obstruction and perforation.

5. The average length of stay (LOS) for this facility was 5.0 days. This is well below the national LOS average of 8.6 days and the state average of 6.0 days. Emergency admissions contributed to 45% of medicare admissions to this facility.

6. The deaths in all categories were distributed evenly among treating physicians resulting in no trends or patterns of adverse care.

Again, we appreciate the opportunity to study this mortality data and contribute the above comments. This information was reviewed in keeping with this facilities commitment to continuously evaluate and seek opportunities to improve care.

Sincerely,

K. Kay Matsumura,
CEO Lakeview Hospital

Karie Minaga-Miya

Karie Minaga-Miya,
Director Quality Management

CONFIDENTIAL REPORT FOR IMPROVEMENT OF HOSPITAL FACILITY AND PATIENT CARE — NOT PART OF THE MEDICAL RECORD.
PURSUANT TO UTAH CODE ANNOTATED §§26-25-1, ET. SEQ., 58-12-43 (7,8,&9), & 58-12-25.

LDS HOSPITAL
ALTA VIEW HOSPITAL
COTTONWOOD HOSPITAL

GARY WM. FARNES, CHIEF EXECUTIVE OFFICER

LDS Hospital
Richard M. Cagen
Administrator/Chief Operating Officer
Eighth Avenue and C Street
Salt Lake City, Utah 84143
(801) 321-1100

Provider #: 460010
March 15, 1992

Gail R. Wilensky, Ph.D., Administrator HCFA
Medicare Hospital Information
Bureau of Data Management and Strategy
Room 3-A-12, Security Office Park Building
6325 Security Boulevard
Baltimore, Maryland 21207-5187
ATTN: Robert Moore

Dear Dr. Wilensky,

Thank you for the 1990 HCFA Mortality Summary and for your improvements ie, technical background enclosures, Standardized Mortality Ratio percentile tables, the Mortality Ratio percentile tables, and the Explanatory Variables.

Accuracy of "explanatory factors": Following HCFA's release of 1989 mortality data, we made operational changes to increase the accuracy of the "explanatory factors", data such as "admit type and source" used by HCFA to predict mortality. For example, cases listed as "emergent or urgent" may be under represented by as much as 25 fold. As we expected, these changes were not evident in the 1990 HCFA study due to the two year "lag time". Once again, we compared HCFA 1990 data with our database and found significant differences.

Comments on HCFA's Methods: Because the "All Causes" category is not useful or specific we recommend that it be dropped in the next study. This would increase precision of the prediction model. On the other hand, data relevant to the high volume and high risk "conditions and procedures" are specific, sensitive, and are useful. Your data tempt us to examine "All Causes" **minus** the "condition and procedure" cases, however it is impractical to review the tens of thousands of diagnoses and conditions represented in that sample.

LDS Hospital Analysis: The graph displays LDS Hospital's analysis of Medicare mortalities within 180 days of discharge. In each case, the observed mortality rate was not significantly different from the predicted rates. Because the LDS Hospital is well within the predicted range for the specific "conditions and procedures", we question HCFA's findings for "All Causes". The LDS Hospital's results for the category "All Causes" differ with the HCFA data because our analysis counted deaths as a single event in contrast with HCFA's method of counting deaths more than once if the death was related to multiple "conditions or procedures".

Replication and Use of HCFA Results: In order to assist our efforts to use the HCFA data, we ask that HCFA provide the entire data set and calculator factors to hospitals. We also recommend use of a universal identifier ie, the patient HIC number.

Sincerely,

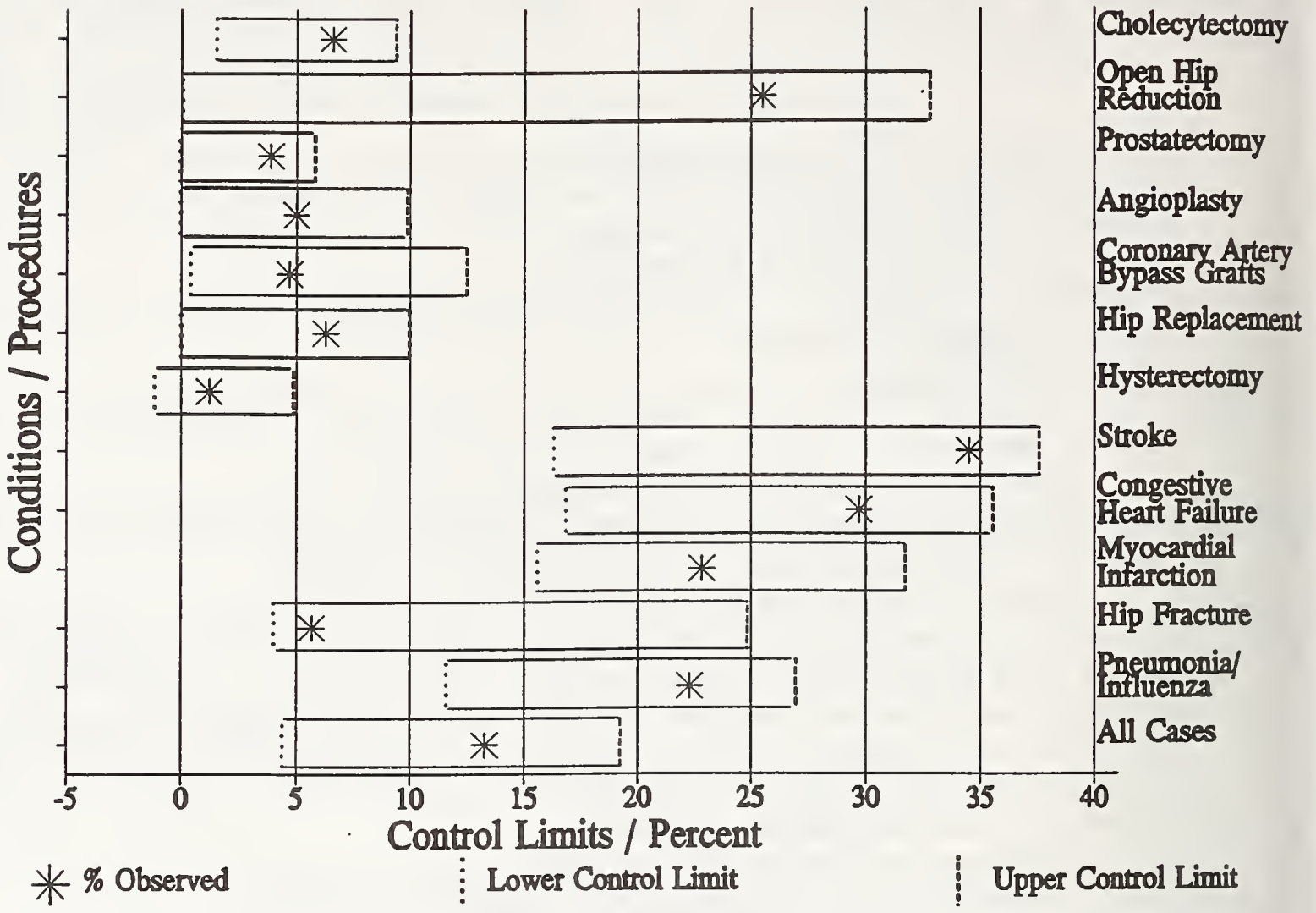
Richard M. Cagen, Administrator

☆U.S. GOVERNMENT PRINTING OFFICE: 1992- 320-975

Provider #: 460010

LDSH Mortalities < 180 Days

Relationship of Observed Rate to Control Limits



FY 1990 MEDICARE HOSPITAL MORTALITY RATES
LDSH ANALYSIS TABLES
180 Days

Category	Cases	Obs % %	Pred %	SD %	Obs/ Pred	HCFA UCL	HCFA LCL
All Causes	4063	13.29	11.9	3.8	1.12	19.39	4.41
Hip FX	88	5.682	14.6	5.4	0.39	25.18	4.02
Sepsis	27	22.2	24.6	---	0.90	24.60	24.60
Myocard. Infarc.	127	22.83	23.8	4.2	0.96	32.03	15.57
CHF	138	29.7	26.2	4.8	1.13	35.61	16.79
Pneum/Flu	121	22.3	19.5	4.0	1.14	27.34	11.66
Stroke	116	34.5	26.8	5.4	1.29	37.38	16.22
COPD	11	18.2	13.7	---	1.33	13.70	13.70
Tran Cer. Ischem	14	28.6	13.1	---	2.18	13.10	13.10
Int Pacemaker	40	2.5	6.6	---	0.38	6.60	6.60
Hysterectomy	82	1.2	1.8	1.5	0.67	4.74	-1.14
CABG	236	4.7	6.4	3.1	0.73	12.48	0.32
Angioplasty	60	5	4.3	2.8	1.16	9.79	-1.19
Cholecystectomy	151	6.6	5.5	2.0	1.20	9.42	1.58
Prostatectomy	232	3.879	2.9	1.5	1.34	5.84	-0.04
Hip Replacement	207	6.3	4.6	2.7	1.37	9.89	-0.69
Open Reduction Hip	51	25.5	15.1	9.0	1.69	32.74	-2.54
Card Endarterectom	50	6	3.4	---	1.76	3.40	3.40

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